

EXHIBIT 58

Ghassan Saed, Ph.D.

Page 1

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW JERSEY

IN RE: JOHNSON & JOHNSON TALCUM

POWDER PRODUCTS MARKETING, SALES

PRACTICES, AND PRODUCTS

LIABILITY LITIGATION

MDL NO: 16-2738 (FLW) (LHG)

_____/

THIS DOCUMENT RELATES TO

ALL CASES

_____/

PAGE 1 TO 343

The Videotaped Deposition of GHASSAN SAED, PH.D.,
Taken at 1 Park Avenue,
Detroit, Michigan,
Commencing at 9:15 a.m.,
Wednesday, January 23, 2019,
Before Laurel A. Frogner, RMR, CRR, CSR-2495.

Ghassan Saed, Ph.D.

Page 2	Page 4
<p>1 APPEARANCES:</p> <p>2</p> <p>3 BEASLEY ALLEN LAW FIRM</p> <p>4 BY: P. LEIGH O'DELL, ESQ. and</p> <p>5 MARGARET M. THOMPSON, MD, JD</p> <p>6 218 Commerce Street</p> <p>7 P.O. Box 4160</p> <p>8 Montgomery, Alabama 36103</p> <p>9 334-269-2343</p> <p>10 leigh.odell@beasleyallen.com</p> <p>11 Margaret.Thompson@BeasleyAllen.com</p> <p>12 Appearing on behalf of the Plaintiffs</p> <p>13</p> <p>14</p> <p>15 ASHCRAFT & GEREL, LLP</p> <p>16 BY: MICHELLE A. PARFITT, ESQ.</p> <p>17 4900 Seminary Road</p> <p>18 Alexandria, Virginia 22311</p> <p>19 703-931-5500</p> <p>20 mparfitt@ashcraftlaw.com</p> <p>21 Appearing on behalf of the Plaintiffs</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>	<p>1 APPEARANCES (Continued):</p> <p>2</p> <p>3 RESTAINO LAW LLC</p> <p>4 BY: JOHN M. RESTAINO, JR., ESQ.</p> <p>5 130 Forest Street</p> <p>6 Denver, Colorado 80220</p> <p>7 303-839-8000</p> <p>8 JRestaino@RestainoLLC.com</p> <p>9 Appearing on behalf of the Plaintiffs</p> <p>10</p> <p>11</p> <p>12 SHOOK, HARDY & BACON, LLP</p> <p>13 BY: MARK C. HEGARTY, ESQ.</p> <p>14 2555 Grand Boulevard</p> <p>15 Kansas City, Missouri 64108</p> <p>16 816-474-6550</p> <p>17 mhegarty@shb.com</p> <p>18 Appearing on behalf of the Defendant Johnson & Johnson</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>
Page 3	Page 5
<p>1 APPEARANCES (Continued):</p> <p>2</p> <p>3 NAPOLI SHKOLNIK PLLC</p> <p>4 BY: ALASTAIR J.M. FINDEIS, ESQ.</p> <p>5 400 Broadhollow Road, Suite 305</p> <p>6 Melville, New York 11747</p> <p>7 631-224-113</p> <p>8 afindeis@napolilaw.com</p> <p>9 Appearing on behalf of the Plaintiffs</p> <p>10</p> <p>11</p> <p>12 WILENTZ, GOLDMAN & SPITZER, P.A.</p> <p>13 BY: DANIEL R. LAPINSKI, ESQ.</p> <p>14 90 Woodbridge Center Drive</p> <p>15 Suite 900, Box 10</p> <p>16 Woodbridge, New Jersey 07095</p> <p>17 732-855-6066</p> <p>18 dlapinski@wilentz.com</p> <p>19 Appearing on behalf of the Plaintiffs</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>	<p>1 APPEARANCES (Continued):</p> <p>2</p> <p>3 SKADDEN, ARPS, SLATE, MEAGHER & FLOM LLP</p> <p>4 BY: GEOFFREY M. WYATT, ESQ.</p> <p>5 1440 New York Avenue N.W.</p> <p>6 Washington, D.C. 20005</p> <p>7 202-371-7008</p> <p>8 geoffrey.wyatt@skadden.com</p> <p>9 Appearing on behalf of the Defendant Johnson & Johnson</p> <p>10</p> <p>11</p> <p>12 GORDON & REES SCULLY MANSUKHANI, LLP</p> <p>13 BY: MICHAEL R. KLATT, ESQ.</p> <p>14 816 Congress Avenue, Suite 1510</p> <p>15 Austin, Texas 78701</p> <p>16 512-391-0197</p> <p>17 Appearing on behalf of the Defendant Imerys Talc America</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>

Ghassan Saed, Ph.D.

Page 6	Page 8
1 APPEARANCES (Continued):	1 TABLE OF CONTENTS
2	2 Witness Page
3 COUGHLIN DUFFY LLP	3 EXAMINATION BY MR. HEGARTY 17
4 BY: JONATHAN F. DONATH, ESQ.	4 EXAMINATION BY MR. KLATT 283
5 350 Mount Kemble Avenue	5 RE-EXAMINATION BY MR. HEGARTY 316
6 P.O. Box 1917	6 EXAMINATION BY MS. O'DELL 319
7 Morristown, New Jersey 07962	7 RE-EXAMINATION BY MR. HEGARTY 328
8 973-267-0058	8 RE-EXAMINATION BY MR. KLATT 337
9 jdonath@coughlinduffy.com	9 EXAMINATION BY MR. LOCKE 339
10 Appearing on behalf of the Defendant Imerys Talc America	10
11	11
12	12 INDEX TO EXHIBITS
13 TUCKER ELLIS	13 (Exhibits attached to transcript)
14 BY: JAMES W. MIZGALA, ESQ.	14
15 233 South Wacker Drive	15 Exhibit Page
16 Chicago, Illinois 60606	16 SAED DEPOSITION EXHIBIT NUMBER 1, COPY OF NOTEBOOK 13
17 312-624-6300	17 BATES SAED000001 - SAED000097, WAS MARKED BY THE
18 James.mizgala@tuckerellis.com	18 REPORTER FOR IDENTIFICATION
19 Appearing on behalf of the Defendant PTI	19
20	20 SAED DEPOSITION EXHIBIT NUMBER 2, LAB NOTEBOOK, 13
21	21 (Retained by Witness) WAS MARKED BY THE REPORTER
22	22 FOR IDENTIFICATION
23	23
24	24
25	25
Page 7	Page 9
1 APPEARANCES (Continued):	1 SAED DEPOSITION EXHIBIT NUMBER 3, LAB NOTEBOOK, 14
2	2 (Retained by Witness) WAS MARKED BY THE REPORTER
3 SEYFARTH SHAW LLP	3 FOR IDENTIFICATION
4 BY: THOMAS T. LOCKE, ESQ.	4
5 975 F Street, N.W.	5 SAED DEPOSITION EXHIBIT NUMBER 4, INVOICES, WAS 22
6 Washington, D.C. 20004	6 MARKED BY THE REPORTER FOR IDENTIFICATION
7 202-463-2400	7
8 tlocke@seyfarth.com	8 SAED DEPOSITION EXHIBIT NUMBER 5, DECEMBER 18, 35
9 Appearing on behalf of the Defendant PCPC	9 2018 DOCUMENT, WAS MARKED BY THE REPORTER FOR
10	10 IDENTIFICATION
11 ALSO PRESENT: Marc Myers, Videographer	11
12	12 SAED DEPOSITION EXHIBIT NUMBER 6, COPY OF CHECK 40
13	13 DATED 11/2/2017 FOR \$15,000, WAS MARKED BY THE
14	14 REPORTER FOR IDENTIFICATION
15	15
16	16 SAED DEPOSITION EXHIBIT NUMBER 7, MOLECULAR BASIS 42
17 * * * * *	17 SUPPORTING THE ASSOCIATION OF TALCUM POWDER USE
18	18 WITH INCREASED RISK OF OVARIAN CANCER, WAS MARKED
19	19 BY THE REPORTER FOR IDENTIFICATION
20	20
21	21 SAED DEPOSITION EXHIBIT NUMBER 8, MOLECULAR BASIS 45
22	22 SUPPORTING THE ASSOCIATION OF TALCUM POWDER USE
23	23 WITH INCREASED RISK OF OVARIAN CANCER, WAS MARKED
24	24 BY THE REPORTER FOR IDENTIFICATION
25	25

Ghassan Saed, Ph.D.

Page 10	Page 12
<p>1 SAED DEPOSITION EXHIBIT NUMBER 10, INDEX FOR LAB 78</p> <p>2 NOTEBOOK, WAS MARKED BY THE REPORTER FOR</p> <p>3 IDENTIFICATION</p>	<p>1 Detroit, Michigan</p> <p>2 Wednesday, January 23, 2019</p> <p>3 About 9:15 a.m.</p>
<p>4</p> <p>5 SAED DEPOSITION EXHIBIT NUMBER 9, PILOT STUDY, 84</p> <p>6 WAS MARKED BY THE REPORTER FOR IDENTIFICATION</p>	<p>4 THE VIDEOGRAPHER: We are now on the record.</p> <p>5 My name is Marc Myers. I'm the videographer for Golkow</p> <p>6 Litigation Services. Today's date is January 23rd,</p> <p>7 2019. The time is now 9:15 a.m. This video deposition</p> <p>8 is being held in Detroit, Michigan in regards to the</p> <p>9 Johnson & Johnson Talcum Powder Products Marketing,</p> <p>10 Sales Practices, and Products Liability Litigation,</p> <p>11 pending in the United States District Court for the</p> <p>12 District of New Jersey.</p>
<p>7</p> <p>8 SAED DEPOSITION EXHIBIT NUMBER 11, NOTEBOOKS, 132</p> <p>9 WAS MARKED BY THE REPORTER FOR IDENTIFICATION</p>	<p>13 The deponent is Dr. Ghassan Saed. And</p> <p>14 counsel will be noted on the stenographic record. And</p> <p>15 will the court reporter please swear in the witness.</p>
<p>10</p> <p>11 SAED DEPOSITION EXHIBIT NUMBER 12, 151</p> <p>12 SAGE PUBLISHING DOCUMENT,</p> <p>13 WAS MARKED BY THE REPORTER FOR IDENTIFICATION</p>	<p>16 DR. GHASSAN SAED,</p> <p>17 having first been duly sworn, was examined and</p> <p>18 testified on his oath as follows:</p>
<p>14</p> <p>15 SAED DEPOSITION EXHIBIT NUMBER 13, 157</p> <p>16 SAGE PUBLISHING DOCUMENT,</p> <p>17 WAS MARKED BY THE REPORTER FOR IDENTIFICATION</p>	<p>19 MR. HEGARTY: Before we begin with</p> <p>20 questioning Dr. Saed, I want to make a note on the</p> <p>21 record with regard to materials that were produced to</p> <p>22 us this morning by counsel for Plaintiffs. Those</p> <p>23 materials included the original lab notebook for</p> <p>24 presumably the study that Dr. Saed did that's reported</p> <p>25 in a manuscript that we were provided as well in</p>
<p>18</p> <p>19 SAED DEPOSITION EXHIBIT NUMBER 14, 161</p> <p>20 COPY OF LETTER FROM REPRODUCTIVE SCIENCES,</p> <p>21 WAS MARKED BY THE REPORTER FOR IDENTIFICATION</p>	
<p>22</p> <p>23 SAED DEPOSITION EXHIBIT NUMBER 15, JANUARY 14, 173</p> <p>24 2019 E-MAIL, WAS MARKED BY THE REPORTER FOR</p> <p>25 IDENTIFICATION</p>	
Page 11	Page 13
<p>1 SAED DEPOSITION EXHIBIT NUMBER 16, EXPERT REPORT, 175</p> <p>2 WAS MARKED BY THE REPORTER FOR IDENTIFICATION</p> <p>3</p>	<p>1 advance, and it's our understanding that we were to</p> <p>2 have copies of the notebook provided to us in advance</p> <p>3 of the deposition. We were provided with what we</p> <p>4 believe to be that notebook that I'm marking as Exhibit</p> <p>5 Number 1.</p>
<p>4 SAED DEPOSITION EXHIBIT NUMBER 17, RESEARCH 214</p> <p>5 ARTICLE, WAS MARKED BY THE REPORTER FOR</p> <p>6 IDENTIFICATION</p>	<p>6 SAED DEPOSITION EXHIBIT NUMBER 1,</p> <p>7 COPY OF NOTEBOOK BATES SAED000001 - SAED000097,</p> <p>8 WAS MARKED BY THE REPORTER</p> <p>9 FOR IDENTIFICATION</p>
<p>7</p> <p>8 SAED DEPOSITION EXHIBIT NUMBER 18, CURRICULUM 278</p> <p>9 VITAE, WAS MARKED BY THE REPORTER FOR</p> <p>10 IDENTIFICATION</p>	<p>10 MR. HEGARTY: That notebook -- those notebook</p> <p>11 pages begin on Page 30 and go through Page 124 as noted</p> <p>12 in handwriting on the pages. They are Bates Numbered 1</p> <p>13 through 97.</p>
<p>11</p> <p>12 SAED DEPOSITION EXHIBIT NUMBER 19, ABSTRACT 315</p> <p>13 SUBMITTED TO SGO, WAS MARKED BY THE REPORTER FOR</p> <p>14 IDENTIFICATION</p>	<p>14 SAED DEPOSITION EXHIBIT NUMBER 2,</p> <p>15 LAB NOTEBOOK, (Retained by Witness)</p> <p>16 WAS MARKED BY THE REPORTER</p> <p>17 FOR IDENTIFICATION</p>
<p>15</p> <p>16 SAED DEPOSITION EXHIBIT NUMBER 20, ABSTRACT, 316</p> <p>17 WAS MARKED BY THE REPORTER FOR IDENTIFICATION</p>	<p>18 MR. HEGARTY: The lab notebook we've been</p> <p>19 provided this morning, which I will designate for</p> <p>20 purposes of the record as Exhibit Number 2, because we</p> <p>21 were told that we were not to mark on it and that Dr.</p> <p>22 Saed would retain it, but the lab notebook provided is</p> <p>23 Exhibit Number 2, includes Pages 1 through 29 which we</p> <p>24 were not provided in advance of the deposition. We</p> <p>25 believe those pages should have been provided along</p>
<p>18</p> <p>19 SAED DEPOSITION EXHIBIT NUMBER 21, ABSTRACT 317</p> <p>20 FROM SRI, WAS MARKED BY THE REPORTER FOR</p> <p>21 IDENTIFICATION</p>	
<p>22</p> <p>23</p> <p>24</p> <p>25</p>	

Ghassan Saed, Ph.D.

<p style="text-align: right;">Page 14</p> <p>1 with the other pages pursuant to Judge Pisano's order 2 and pursuant to our Notice of Deposition. Not having 3 those pages in advance prejudices our right to have a 4 full and complete opportunity to discuss the lab 5 notebook with Dr. Saed during his deposition, and we 6 object to its production here this morning and 7 certainly reserve our right to seek additional time 8 with Dr. Saed as well as any other remedies that we 9 might be entitled to for what we believe to be an 10 untimely production. 11 Also, I will note for purposes of the record 12 that we received this morning as well another lab 13 notebook that is purported to be a notebook covering an 14 additional set of tests that Dr. Saed did with Fisher 15 Scientific Talc, and make note that there's a reference 16 in the manuscript that we were provided testing done on 17 Fisher Scientific talc. We'll designate for purposes 18 of the record this notebook is Exhibit Number 3. 19 SAED DEPOSITION EXHIBIT NUMBER 3, 20 LAB NOTEBOOK, (Retained by Witness) 21 WAS MARKED BY THE REPORTER 22 FOR IDENTIFICATION 23 MR. HEGARTY: This notebook was not provided 24 nor -- in advance of the deposition nor were any pages 25 of this notebook provided in advance of the deposition.</p>	<p style="text-align: right;">Page 16</p> <p>1 excuse me, was not a part of Dr. Saed's manuscript. 2 MR. HEGARTY: I marked it as Exhibit 3, the 3 other lab notebook. 4 MS. O'DELL: I'm referring to Exhibit 2, the 5 initial lab -- 6 MR. HEGARTY: Okay, I'm sorry, I thought you 7 were referring to the second one. 8 MS. O'DELL: I was not. 9 MR. HEGARTY: I'm sorry to interrupt. 10 MS. O'DELL: I'm pretty sure you are not 11 sorry you interrupted me, but Exhibit 2 is the lab 12 notebook I'm referring to, and the study that is the 13 basis of the objection was not a part of the manuscript 14 or the report. 15 Secondly, Exhibit 3 includes a separate and 16 distinct set of data for a Fisher talc study, and we 17 have provided that today, it was published in an 18 abstract and we provided that today in compliance with 19 the second notice of deposition. So the plaintiff's 20 position is we have provided everything the Judge 21 ordered, everything that's required as part of the 22 notice, and we'll oppose any motion to extend the 23 deposition and keep it open. 24 MR. HEGARTY: I do have a question. You're 25 saying that the lab notebook we designated as Exhibit</p>
<p style="text-align: right;">Page 15</p> <p>1 We have not had an opportunity to review it to know 2 whether this is pertinent to the manuscript that we'll 3 talk about here today, but also believe that this is 4 likely to also fall within the scope of Judge Pisano's 5 order and certainly within the scope of the Notice of 6 Deposition that we had made. So we also object to 7 its -- the timeliness of the production of this 8 notebook and, again, we reserve all rights for whatever 9 remedies are appropriate due to this late production. 10 MR. KLATT: Imerys Talc America joins in what 11 Mr. Hegarty said. And can we have the agreement we've 12 had that one objection is good for all? 13 MS. O'DELL: Yes. 14 MR. KLATT: All defendants join. 15 MS. O'DELL: So on behalf of the steering 16 committee, let me state that Judge Pisano's order 17 related to the specific -- a specific Notice of 18 Deposition that requested documents regarding the 19 underlying data and study that was reported in Dr. 20 Saed's manuscript as well as his expert report. That 21 was the subject of the order. Those materials were 22 provided in compliance with Judge Pisano's order. 23 There was a second general notice that asked for other 24 talc studies. The additional talc study that's noted 25 in the lab book Exhibit 2 was not a part of Judge --</p>	<p style="text-align: right;">Page 17</p> <p>1 Number 2 for which you provided copies is not related 2 to the manuscript that's titled Molecular Basis 3 Supporting the Association of Talcum Powder Use With 4 Increased Risk of Ovarian Cancer? 5 MS. O'DELL: That's not what I said. What I 6 said is the portion of the lab notebook Exhibit 2, 7 which you referred to as Pages 1 through 29, are not 8 reported in the manuscript or the report, the expert 9 report in this matter, and, therefore, they were not 10 subject Judge Pisano's previous ruling, so that's the 11 distinction that I'm making. These are materials that 12 were made available to you today and you have full 13 opportunity TO ask Dr. Saed questions about it. 14 MR. HEGARTY: I understand. 15 EXAMINATION BY MR. HEGARTY: 16 Q. Good morning, Dr. Saed. 17 A. Good morning. 18 Q. Would you -- strike that. My name is Mark Hegarty. I 19 represent the Johnson & Johnson defendants in this 20 matter. Would you please state your full name for the 21 record, please. 22 A. Ghassan Saed. 23 Q. Who is your current employer, Dr. Saed? 24 A. Wayne State University Medical School. 25 Q. What is your title?</p>

5 (Pages 14 to 17)

Ghassan Saed, Ph.D.

<p style="text-align: right;">Page 18</p> <p>1 A. Wayne State University Medical School.</p> <p>2 Q. What is your title there?</p> <p>3 A. Associate professor.</p> <p>4 Q. How long have you held that position?</p> <p>5 A. Eight years about, I'm not --</p> <p>6 Q. Do you also have a separate personal consulting</p> <p>7 business for purposes of litigation?</p> <p>8 A. DS Biotech, it's a consulting company.</p> <p>9 Q. Are there any other employees or owners or other</p> <p>10 individuals involved in DS Biotech besides you?</p> <p>11 A. No.</p> <p>12 Q. Is your son in any way involved in that business?</p> <p>13 A. Just doing some paperwork.</p> <p>14 Q. Do you do any business through DS Biotech besides</p> <p>15 expert witness consulting for litigation?</p> <p>16 A. We do consulting for scientific testing for</p> <p>17 universities, for investigators, we design experiments,</p> <p>18 we help them write manuscripts.</p> <p>19 Q. You said for other investigators or universities. Do</p> <p>20 you do any business with any companies?</p> <p>21 A. I do, yes.</p> <p>22 Q. Can you name a company with whom you do business?</p> <p>23 A. Temple Pharmaceuticals.</p> <p>24 Q. How long has DS Biotech been in business?</p> <p>25 A. 2006.</p>	<p style="text-align: right;">Page 20</p> <p>1 BY MR. HEGARTY:</p> <p>2 Q. What portion of the fees have you not been paid --</p> <p>3 A. So we --</p> <p>4 Q. -- through DS Biotech?</p> <p>5 A. So we have to deduct expenses and everything.</p> <p>6 Q. Can you approximate the expenses you have had to deduct</p> <p>7 from the fees you've --</p> <p>8 A. I haven't done it for this year yet.</p> <p>9 Q. Do you have any other sources of income besides your</p> <p>10 work at Wayne State and through DS Biotech?</p> <p>11 A. No.</p> <p>12 Q. What are you charging Plaintiff's Counsel in this</p> <p>13 litigation for your work?</p> <p>14 A. \$600 an hour.</p> <p>15 Q. Do you have different rates for deposition or trial</p> <p>16 testimony?</p> <p>17 A. Do I have different rate?</p> <p>18 Q. Sure. The rate you just quoted me was per hour, \$600</p> <p>19 per hour. Do you have a different per-hour rate if</p> <p>20 you're being deposed or if you're going to trial?</p> <p>21 A. Oh, no.</p> <p>22 Q. You have obligations at Wayne State University to</p> <p>23 disclose financial arrangements --</p> <p>24 A. Yes.</p> <p>25 Q. -- is that correct? Have you disclosed your financial</p>
<p style="text-align: right;">Page 19</p> <p>1 Q. Are you currently named as an expert witness in any</p> <p>2 other litigation besides this one?</p> <p>3 A. No.</p> <p>4 Q. Have the fees that you have generated in connection</p> <p>5 with your work on this case been directed to DS</p> <p>6 Biotech?</p> <p>7 A. Been directed?</p> <p>8 Q. Well, have the fees that you have generated for your</p> <p>9 work on this case been paid to DS Biotech?</p> <p>10 A. Yes.</p> <p>11 Q. Do you receive all of the income from those fees?</p> <p>12 A. Through DS Biotech?</p> <p>13 Q. Yes.</p> <p>14 A. Yes, after I submit taxes and all that.</p> <p>15 Q. But you essentially receive the fees even though they</p> <p>16 were directed to DS Biotech, correct?</p> <p>17 A. Correct, the company received it, yes.</p> <p>18 Q. Then you have been -- you were paid by the company,</p> <p>19 correct?</p> <p>20 A. Yes.</p> <p>21 Q. Were you -- have you been paid by the company the same</p> <p>22 amount to which the fees generated?</p> <p>23 MS. O'DELL: Object to the form.</p> <p>24 THE WITNESS: Yeah, I am -- the answer is no.</p> <p>25</p>	<p style="text-align: right;">Page 21</p> <p>1 arrangement --</p> <p>2 A. Yes.</p> <p>3 Q. -- to Wayne State with regard to your work with</p> <p>4 Plaintiff's Counsel in this case?</p> <p>5 A. Yes.</p> <p>6 Q. When did you make that disclosure?</p> <p>7 A. Every year they -- there's a deadline to receive -- to</p> <p>8 submit a form which shows consultation efforts, and for</p> <p>9 2018 that was submitted 10 days ago.</p> <p>10 Q. Who did you identify to whom you were consulting with</p> <p>11 with regard to that disclosure for purposes of this</p> <p>12 litigation?</p> <p>13 A. DS Biotech and Beasley Allen.</p> <p>14 Q. You prepared a report in this case, correct?</p> <p>15 A. (Nods head.)</p> <p>16 Q. Yes?</p> <p>17 A. Did I prepare a report? Yes.</p> <p>18 Q. Did anyone outside of the lawyers for the plaintiffs in</p> <p>19 this case assist you in any way with that report?</p> <p>20 A. No.</p> <p>21 Q. Do you know how much you have been paid through the</p> <p>22 present date for your work in this litigation?</p> <p>23 A. Yes.</p> <p>24 Q. How much?</p> <p>25 A. Approximately 260, something like that.</p>

Ghassan Saed, Ph.D.

Page 22	Page 24
<p>1 Q. 260,000?</p> <p>2 A. Yes, about that, maybe a little bit less, I don't know,</p> <p>3 I can't remember the exact number.</p> <p>4 SAED DEPOSITION EXHIBIT NUMBER 4,</p> <p>5 INVOICES,</p> <p>6 WAS MARKED BY THE REPORTER</p> <p>7 FOR IDENTIFICATION</p> <p>8 BY MR. HEGARTY:</p> <p>9 Q. I'm marking as Exhibit Number 4, Dr. Saed, copies of</p> <p>10 invoices that we were provided in advance of the</p> <p>11 deposition. Would you look at Exhibit Number 4, and</p> <p>12 tell me whether those are copies of all the invoices</p> <p>13 you have generated for purposes of your work in this</p> <p>14 case?</p> <p>15 A. Yeah, they look fine to me.</p> <p>16 Q. The last invoice we were provided is dated November 16,</p> <p>17 2018, that's the issue date. Have you prepared any</p> <p>18 additional invoices since that date?</p> <p>19 A. No.</p> <p>20 Q. Have you spent additional time on this case for which</p> <p>21 you intend to prepare an invoice --</p> <p>22 A. Yes.</p> <p>23 Q. -- since that date?</p> <p>24 A. Yes.</p> <p>25 Q. How much additional time have you spent that you have</p>	<p>1 Beasley Allen?</p> <p>2 A. So I started October, maybe 1st of October, maybe</p> <p>3 before that, I can't remember the exact date.</p> <p>4 Q. What is your best estimate?</p> <p>5 A. I would say end of September.</p> <p>6 Q. So the first invoice -- I'm sorry, go ahead.</p> <p>7 A. Go ahead.</p> <p>8 Q. So the first invoice on Exhibit Number 4 would reflect</p> <p>9 the time you spent from approximately the end of</p> <p>10 September through October 30th, 2017, correct?</p> <p>11 A. Correct.</p> <p>12 Q. Can you describe for me with regard to the first</p> <p>13 invoice the type of work that you did between the</p> <p>14 first -- between the end of September and the date of</p> <p>15 this first invoice?</p> <p>16 A. Sure. So this was time for meetings, meeting with them</p> <p>17 and reviewing literature basically.</p> <p>18 Q. You said meeting with them. Who is "them"?</p> <p>19 A. With Beasley Allen.</p> <p>20 Q. Which attorneys from Beasley Allen did you meet with?</p> <p>21 A. Dr. Thompson, Mrs. --</p> <p>22 MS. O'DELL: O'Dell.</p> <p>23 THE WITNESS: -- O'Dell and Jennifer --</p> <p>24 what's her last name?</p> <p>25</p>
Page 23	Page 25
<p>1 not yet invoiced?</p> <p>2 A. Approximately 100, 110 hours.</p> <p>3 Q. The invoices show that they were issued by DS Biotech,</p> <p>4 that's the company we talked about earlier, is that</p> <p>5 correct?</p> <p>6 A. Yes.</p> <p>7 Q. There are no other employees of DS Biotech besides</p> <p>8 yourself, is that correct?</p> <p>9 A. And help from my son, paperwork part-time.</p> <p>10 Q. Is he a paid employee?</p> <p>11 A. No.</p> <p>12 Q. The first page of Exhibit Number 4 with an issue date</p> <p>13 of the invoice 10-30-2017 includes just a single word</p> <p>14 in the description Consulting with no corresponding</p> <p>15 date. What is the date of the first consulting entry</p> <p>16 that you have listed on the first page of Exhibit</p> <p>17 Number 4?</p> <p>18 A. 10-30, so what's the -- I'm sorry.</p> <p>19 Q. Let me ask, Exhibit Number 4, the first page refers to</p> <p>20 an invoice of \$20,400 at a unit price of \$600, so there</p> <p>21 would be several hours, you spent several hours doing</p> <p>22 something that generated that invoice, correct?</p> <p>23 A. Yes.</p> <p>24 Q. When did that something start? When is the first time</p> <p>25 that you spent anytime on this matter on behalf of</p>	<p>1 BY MR. HEGARTY:</p> <p>2 Q. Do you recall the date of your first contact by Beasley</p> <p>3 Allen?</p> <p>4 A. Around middle of August.</p> <p>5 Q. How was that contact made?</p> <p>6 A. A phone call.</p> <p>7 Q. A phone call to you?</p> <p>8 A. Yes.</p> <p>9 Q. Who called you?</p> <p>10 A. Dr. Thompson.</p> <p>11 Q. Did you know Dr. Thompson before the call?</p> <p>12 A. No.</p> <p>13 Q. Apart from -- or strike that. What did she tell you</p> <p>14 when she first called you?</p> <p>15 A. She told me that they would like to meet with me to</p> <p>16 discuss the possibility of acting as a witness expert</p> <p>17 in ovarian cancer inflammation and oxidative stress.</p> <p>18 Q. Did you agree to serve as a retained expert on behalf</p> <p>19 of Beasley Allen at that first call?</p> <p>20 A. No.</p> <p>21 Q. What else were you told by Miss Thompson during that</p> <p>22 phone call?</p> <p>23 A. We just basically talked about setting a meeting and we</p> <p>24 did.</p> <p>25 Q. You said that she told you that they would like to meet</p>

7 (Pages 22 to 25)

Ghassan Saed, Ph.D.

Page 26	Page 28
<p>1 with you to discuss the possibility of acting as a</p> <p>2 witness, expert witness on cancer inflammation and</p> <p>3 oxidative stress. Was there a reference during that</p> <p>4 call to talc exposure?</p> <p>5 A. No.</p> <p>6 Q. So talc was not brought up --</p> <p>7 A. In the conversation, no.</p> <p>8 Q. -- in the first call. Was the fact that they were</p> <p>9 representing clients or that they were wanting to talk</p> <p>10 to you in connection with a litigation, was that</p> <p>11 discussed?</p> <p>12 A. In the phone call, no.</p> <p>13 Q. Did she identify herself as a lawyer?</p> <p>14 A. Yes, and the firm.</p> <p>15 Q. What was your understanding as far as why a lawyer from</p> <p>16 Beasley Allen would want to talk to you about</p> <p>17 inflammation and oxidative stress?</p> <p>18 A. Because -- so, oh, so you're telling me if she told me</p> <p>19 she is the lawyer on behalf of the defendants, I mean</p> <p>20 the plaintiffs in ovarian cancer cases and talc?</p> <p>21 Q. Yes.</p> <p>22 A. She, yes, she identified herself as such.</p> <p>23 Q. So you understood that the --</p> <p>24 A. Yes.</p> <p>25 Q. -- consulting that you would be doing would be with</p>	<p>1 moment after Mark's question so I can object if I need</p> <p>2 to.</p> <p>3 THE WITNESS: Oh, I'm sorry.</p> <p>4 MS. O'DELL: Thank you.</p> <p>5 THE WITNESS: Where are we now?</p> <p>6 BY MR. HEGARTY:</p> <p>7 Q. Yes, I said -- my question was what analysis of the</p> <p>8 medical literature had you done with regard to talc and</p> <p>9 ovarian cancer prior to the call from Miss Thompson?</p> <p>10 A. Reading the literature.</p> <p>11 Q. What literature had you read?</p> <p>12 A. I read the epidemiology studies, I read some of the</p> <p>13 molecular studies, I read what's in the news, I read</p> <p>14 everything, I listened to the news, that's my interest,</p> <p>15 it's ovarian cancer and inflammation.</p> <p>16 Q. What epidemiologic studies had you read prior to the</p> <p>17 call from Miss Thompson?</p> <p>18 A. I read -- the exact one?</p> <p>19 Q. Yes.</p> <p>20 A. I can't remember exact one, but I read several studies.</p> <p>21 Q. Can you identify the names of any studies, whether by</p> <p>22 author or study name, that you had read prior to the</p> <p>23 call from Miss Thompson?</p> <p>24 MS. O'DELL: Object and asked and answered.</p> <p>25 THE WITNESS: Yeah. I mean I can look it up</p>
Page 27	Page 29
<p>1 regard to in some way to talc, correct?</p> <p>2 MS. O'DELL: Object to the form.</p> <p>3 THE WITNESS: No. I was asked to serve as a</p> <p>4 witness expert in my specialty, which is what we did</p> <p>5 and what I do for the last 30 years, ovarian cancer,</p> <p>6 oxidative stress, and inflammation.</p> <p>7 BY MR. HEGARTY:</p> <p>8 Q. As of the time of that phone call, your specialty was</p> <p>9 not talc, correct?</p> <p>10 A. My specialty is anything that induces inflammation and</p> <p>11 oxidative stress that is linked to ovarian cancer.</p> <p>12 Q. But at the time of that first call you had done no</p> <p>13 studies involving talc, correct?</p> <p>14 A. No, no studies, but I was really interested in it</p> <p>15 because of the media reports that's going at the time.</p> <p>16 Q. And at the time of that first call you had done no</p> <p>17 analysis of the medical literature with regard to talc</p> <p>18 and ovarian cancer, correct?</p> <p>19 MS. O'DELL: Objection.</p> <p>20 THE WITNESS: Not correct.</p> <p>21 BY MR. HEGARTY:</p> <p>22 Q. What analysis of the medical literature had you done</p> <p>23 with regard to talc and ovarian cancer prior to the</p> <p>24 call from Miss Thompson?</p> <p>25 MS. O'DELL: Doctor, if you'll give me just a</p>	<p>1 for you, but the cohort study is what I read, and I</p> <p>2 read some other studies. I can't remember exactly.</p> <p>3 BY MR. HEGARTY:</p> <p>4 Q. When in relation to the call from Miss Thompson had you</p> <p>5 read the medical literature you just described?</p> <p>6 A. Sorry, I missed that.</p> <p>7 Q. When in relation to the call from Miss Thompson in</p> <p>8 August of 2017 had you read the literature you just</p> <p>9 talked about, the epi studies, the molecular studies?</p> <p>10 A. Yeah, it's over the past year prior.</p> <p>11 Q. What was it that prompted you to review those materials</p> <p>12 in the first place?</p> <p>13 A. The media reports.</p> <p>14 Q. What media reports?</p> <p>15 A. People talking about the risk of ovarian cancer and</p> <p>16 talc powder use, it was all over the place.</p> <p>17 Q. As of the time that Miss Thompson called, you had done</p> <p>18 no studies yourself involving talc, correct?</p> <p>19 A. Lab studies?</p> <p>20 Q. Lab studies.</p> <p>21 A. No.</p> <p>22 Q. You had done no other study besides reading the</p> <p>23 literature, correct?</p> <p>24 MS. O'DELL: Objection to form.</p> <p>25 THE WITNESS: Other studies related to talc?</p>

8 (Pages 26 to 29)

Ghassan Saed, Ph.D.

Page 30	Page 32
<p>1 BY MR. HEGARTY:</p> <p>2 Q. Correct.</p> <p>3 A. I didn't do any studies related to -- lab studies</p> <p>4 related to talc before that, yes.</p> <p>5 Q. And as of the time that Miss Thompson called you, had</p> <p>6 you formed any opinions with regard to talc and ovarian</p> <p>7 cancer?</p> <p>8 A. Formed an opinion?</p> <p>9 Q. Yes, as to whether there's a causal link between talc</p> <p>10 and ovarian cancer?</p> <p>11 A. It's always my opinion that anything that causes</p> <p>12 inflammation, redox imbalance, is linked to increased</p> <p>13 risk of ovarian cancer. This is the core of my work.</p> <p>14 Q. So it's always been your opinion that anything that</p> <p>15 causes inflammation will cause ovarian cancer?</p> <p>16 MS. O'DELL: Object to the form.</p> <p>17 You may answer.</p> <p>18 THE WITNESS: No. I said that anything that</p> <p>19 induces inflammation, alter the redox balance is</p> <p>20 potential for increasing risk of ovarian cancer, yes.</p> <p>21 BY MR. HEGARTY:</p> <p>22 Q. As of the time that Miss Thompson called you, what</p> <p>23 medical studies reported that talc altered the redox</p> <p>24 balance leading to inflammation?</p> <p>25 A. There was one study of Shukla, I think, and they</p>	<p>1 talc and ovarian cancer?</p> <p>2 A. That talc is a potential inducer of inflammation, and</p> <p>3 it induces and increases risk of ovarian cancer.</p> <p>4 Q. Those opinions came from your review -- from the media</p> <p>5 reports and your review of the literature you</p> <p>6 described?</p> <p>7 A. Uh-huh.</p> <p>8 Q. Is that correct?</p> <p>9 A. Correct.</p> <p>10 Q. With regard to the invoices we marked as Exhibit</p> <p>11 Number 4, do these reflect only your time spent in this</p> <p>12 case?</p> <p>13 A. Correct.</p> <p>14 Q. Are you able to break down from these invoices the</p> <p>15 amount of hours you spent reviewing literature?</p> <p>16 A. From the first one?</p> <p>17 Q. From the first one through the end.</p> <p>18 A. The answer is no, because I always review literature,</p> <p>19 this is my job, that's what I do for a living, I review</p> <p>20 literature every single day.</p> <p>21 Q. After being contacted by Miss Thompson, did you review</p> <p>22 literature with regard to this subject area, talc and</p> <p>23 ovarian cancer, that you had not reviewed before?</p> <p>24 A. Yes.</p> <p>25 Q. Are you able to break down from these invoices the</p>
Page 31	Page 33
<p>1 measured the effect of -- they measured the reactive</p> <p>2 oxygen species especially dihydrogen peroxide H2O2, and</p> <p>3 they found a dose response effect when exposure to</p> <p>4 talc.</p> <p>5 Q. From that one study you came to the opinion that --</p> <p>6 A. No.</p> <p>7 Q. -- talc use causes redox imbalance that leads to</p> <p>8 inflammation that leads to ovarian cancer?</p> <p>9 MS. O'DELL: Object to the form.</p> <p>10 THE WITNESS: No. What I said that my</p> <p>11 interest is inflammation and redox balance and</p> <p>12 imbalance and reactive oxygen species, so anything that</p> <p>13 able at the cellular level to alter this, manipulate</p> <p>14 this, is a candidate, is a potential risk to ovarian</p> <p>15 cancer.</p> <p>16 BY MR. HEGARTY:</p> <p>17 Q. As of the time that Miss Thompson called you, had you</p> <p>18 come to the opinion that talc used by women did alter</p> <p>19 the redox balance?</p> <p>20 MS. O'DELL: Objection, asked and answered.</p> <p>21 You may answer.</p> <p>22 THE WITNESS: Repeat the question, please.</p> <p>23 BY MR. HEGARTY:</p> <p>24 Q. Sure. As of the time that you received the call from</p> <p>25 Miss Thompson, what opinion did you have with regard to</p>	<p>1 amount of time you spent writing your expert report?</p> <p>2 A. There is actually one that actually state -- no, no,</p> <p>3 where is it? I thought there was one saying expert</p> <p>4 report. I can identify it, yes.</p> <p>5 Q. You can't identify it?</p> <p>6 A. I can, just give me one second. Yes, it's this one.</p> <p>7 Q. The very last one?</p> <p>8 A. Yes.</p> <p>9 Q. Does the very last one represent the amount of time you</p> <p>10 spent writing your report?</p> <p>11 A. Correct.</p> <p>12 Q. Are you able to break down from the invoices the amount</p> <p>13 of time you spent talking with lawyers for Beasley</p> <p>14 Allen?</p> <p>15 A. No.</p> <p>16 Q. You prepared a manuscript which we'll talk about today</p> <p>17 that has been submitted to the Journal for Reproductive</p> <p>18 Sciences entitled Molecular Basis Supporting the</p> <p>19 Association of Talcum Powder Use With Increased Risk of</p> <p>20 Ovarian Cancer. Are you familiar with that?</p> <p>21 A. Yes.</p> <p>22 Q. Did you bill the time you spent preparing that</p> <p>23 manuscript to lawyers for Beasley Allen?</p> <p>24 A. For this one? Yes.</p> <p>25 Q. Is that reflected in these invoices?</p>

Ghassan Saed, Ph.D.

Page 34	Page 36
<p>1 A. Yes.</p> <p>2 Q. Are you able to tell me how much time you spent</p> <p>3 preparing that manuscript that's reflected in the</p> <p>4 invoices we marked as Exhibit Number 4?</p> <p>5 A. Exactly, no.</p> <p>6 Q. Can you approximate it in any way?</p> <p>7 A. Yes.</p> <p>8 Q. What's your approximation?</p> <p>9 A. I would say about 60 to 70 hours.</p> <p>10 Q. There are other authors on that paper, correct?</p> <p>11 A. Correct.</p> <p>12 Q. Did you bill their time to Beasley Allen for their work</p> <p>13 on the manuscript?</p> <p>14 A. No.</p> <p>15 Q. How was their time paid for?</p> <p>16 A. So some of them are, if you look at the names, some of</p> <p>17 them are the department chair, Dr. Morris, and this is</p> <p>18 an academic institution, we don't bill for the time of</p> <p>19 consultants or coworkers or co-authors. The research</p> <p>20 technicians was paid from my lab, and Amy Harper is a</p> <p>21 fellow, OB-GYN oncology fellow, and they're paid for</p> <p>22 fellowships through the department, so we don't bill</p> <p>23 for their time.</p> <p>24 Q. I'm marking as Exhibit Number 5 -- I'm sorry, go ahead.</p> <p>25 A. Go ahead.</p>	<p>1 costs for your talc project that she did on</p> <p>2 December 18, 2018?</p> <p>3 A. I always ask for all my projects accounts.</p> <p>4 Q. Where is the documentation or accounting of the time</p> <p>5 you spent, the lab supplies, the equipment, services,</p> <p>6 isn't there a separate list that breaks down the hours</p> <p>7 or the costs for personnel time and lab supplies,</p> <p>8 equipment, services?</p> <p>9 MS. O'DELL: Objection.</p> <p>10 THE WITNESS: Yeah, so the question is these</p> <p>11 numbers came from breakdown of expenses, receipts. We</p> <p>12 do have receipts for all the expenses from the lab.</p> <p>13 BY MR. HEGARTY:</p> <p>14 Q. Do you have receipts for, that document all the time</p> <p>15 that is under the heading personnel?</p> <p>16 A. So the only personnel that's paid was Dr. Fletcher and</p> <p>17 part-time my research assistant, medical student Ira,</p> <p>18 she was paid part-time, but full-time salary was paid</p> <p>19 for Nicole from this budget.</p> <p>20 Q. Who paid --</p> <p>21 A. That's included in what they call indirect.</p> <p>22 Q. Let me finish, Doctor, who paid for Ira and Nicole's</p> <p>23 time?</p> <p>24 A. My lab.</p> <p>25 Q. When you say your lab, you're talking about your lab at</p>
Page 35	Page 37
<p>1 Q. You were saying something.</p> <p>2 A. I said the only time billed to this from the manuscript</p> <p>3 is my time.</p> <p>4 Q. I'm marking this as Exhibit Number 5, a copy of another</p> <p>5 document we were provided in advance of the deposition.</p> <p>6 SAED DEPOSITION EXHIBIT NUMBER 5,</p> <p>7 DECEMBER 18, 2018 DOCUMENT,</p> <p>8 WAS MARKED BY THE REPORTER</p> <p>9 FOR IDENTIFICATION</p> <p>10 BY MR. HEGARTY:</p> <p>11 Q. Can you tell me what Exhibit Number 5 is?</p> <p>12 A. So this is the cost of this project since the beginning</p> <p>13 till now from my lab from my side.</p> <p>14 Q. This listing of costs was sent to you by a Sharon Pepe?</p> <p>15 A. The contract -- the grants and contract manager, yes.</p> <p>16 Q. Who is that?</p> <p>17 A. The financial manager of our department, grants and</p> <p>18 contract.</p> <p>19 Q. How did she come to send you this document on</p> <p>20 December 18, 2018?</p> <p>21 A. How come?</p> <p>22 Q. Yes.</p> <p>23 A. I asked her. Every year they give us a budget balance</p> <p>24 of each account that we have.</p> <p>25 Q. Why did you ask her to send you the accounting of the</p>	<p>1 Wayne State?</p> <p>2 A. Yes.</p> <p>3 Q. And where did the funds come from that your lab could</p> <p>4 use to pay Ira and Nicole?</p> <p>5 A. I have discretion funding for my lab.</p> <p>6 Q. I'm sorry?</p> <p>7 A. I have funds available for me to my lab.</p> <p>8 Q. Who provides those funds?</p> <p>9 A. The department.</p> <p>10 Q. So the department paid for Ira's and Nicole's time to</p> <p>11 work on this talc project?</p> <p>12 A. Correct.</p> <p>13 Q. The total listed there is \$94,957. How much of that</p> <p>14 went to Ira and Nicole?</p> <p>15 A. Most of that went to Nicole, I can't remember exact,</p> <p>16 but most of that went to Nicole because she was a</p> <p>17 full-time post doc at the time.</p> <p>18 Q. Do you know where the department received the funds</p> <p>19 that were used to pay Ira and Nicole?</p> <p>20 MS. O'DELL: Object to the form.</p> <p>21 THE WITNESS: I missed that.</p> <p>22 BY MR. HEGARTY:</p> <p>23 Q. Sure. I think you said the department paid for Ira's</p> <p>24 and Nicole's time. From where did the department get</p> <p>25 the funds they used to pay for Ira and Nicole's time?</p>

10 (Pages 34 to 37)

Ghassan Saed, Ph.D.

<p style="text-align: right;">Page 38</p> <p>1 A. Let me explain that. So I get fund from the department</p> <p>2 in the form of an account, and the personnel is billed</p> <p>3 into this account.</p> <p>4 Q. So where did the funds come from that you get access</p> <p>5 to?</p> <p>6 A. From the department.</p> <p>7 Q. And where does the department get them from?</p> <p>8 A. Ask them, I don't know. They have fund for scientists</p> <p>9 to do, develop.</p> <p>10 Q. Who would have the receipts of all the expenses and the</p> <p>11 costs associated with this project?</p> <p>12 A. Sharon.</p> <p>13 Q. She notes that the costs listed are for your talc</p> <p>14 project from October 1, 2017. Is that the date on</p> <p>15 which the talc project started incurring expenses?</p> <p>16 A. I think so, yes.</p> <p>17 Q. The document notes that this does not include your</p> <p>18 effort costs. What does that mean?</p> <p>19 A. My salary.</p> <p>20 Q. Your salary at Wayne State?</p> <p>21 A. Yes.</p> <p>22 Q. So you were paid a salary at Wayne State but you were</p> <p>23 also paid by Beasley Allen to do this talc project,</p> <p>24 correct?</p> <p>25 MS. O'DELL: Object to the form.</p>	<p style="text-align: right;">Page 40</p> <p>1 A. I can't. I didn't -- I never thought about it like</p> <p>2 that.</p> <p>3 Q. Does Exhibit Number 5 capture all of the personnel, lab</p> <p>4 supplies, equipment, services, costs for this project?</p> <p>5 A. From my lab, yes.</p> <p>6 Q. Have there been any such costs incurred since</p> <p>7 December 18, 2018?</p> <p>8 A. What's the last date here? Since what's the --</p> <p>9 Q. Since the date of this document, have there been</p> <p>10 additional costs incurred for the talc project?</p> <p>11 A. No.</p> <p>12 Q. Dr. Saed, we were also provided today with what I'm</p> <p>13 marking as Exhibit Number 6.</p> <p>14 SAED DEPOSITION EXHIBIT NUMBER 6,</p> <p>15 COPY OF CHECK DATED 11/2/2017 FOR \$15,000,</p> <p>16 WAS MARKED BY THE REPORTER</p> <p>17 FOR IDENTIFICATION</p> <p>18 BY MR. HEGARTY:</p> <p>19 Q. Would you please identify for me what Exhibit Number 6</p> <p>20 is.</p> <p>21 A. This is a retainer check for my consulting work.</p> <p>22 Q. Did you ask for a retainer in connection with your</p> <p>23 consulting work or did they offer to provide that to</p> <p>24 you?</p> <p>25 A. I can't remember.</p>
<p style="text-align: right;">Page 39</p> <p>1 THE WITNESS: I was paid as a consultant for</p> <p>2 my time.</p> <p>3 BY MR. HEGARTY:</p> <p>4 Q. Now, all the work that you did on the talc project was</p> <p>5 paid for in an hourly way by Beasley Allen, correct?</p> <p>6 A. No.</p> <p>7 Q. What time that you spent on the talc project was not</p> <p>8 paid for by Beasley Allen?</p> <p>9 A. It's the time I spent in the lab doing my duties.</p> <p>10 Q. The time you spent in the lab doing your duties on this</p> <p>11 project?</p> <p>12 A. On this project, on other projects, too.</p> <p>13 Q. So there was time you spent on the talc project that</p> <p>14 you did not bill to Beasley Allen?</p> <p>15 A. Correct.</p> <p>16 Q. How did you divide that, the time that you did bill</p> <p>17 Beasley Allen for on the talc project and the time you</p> <p>18 didn't?</p> <p>19 A. So the time I work for extra, additional work, I billed</p> <p>20 them, like overtime, I worked Saturdays, I worked</p> <p>21 weekends, I write, I read.</p> <p>22 Q. Can you estimate the amount of time that you spent on</p> <p>23 the talc project that you did not bill Beasley Allen?</p> <p>24 A. Hour, hours you're talking?</p> <p>25 Q. By hours.</p>	<p style="text-align: right;">Page 41</p> <p>1 Q. With regard to the invoices and the retainer, have you</p> <p>2 been paid for all the invoices?</p> <p>3 A. I have been paid for these invoices, yes.</p> <p>4 Q. So with regard to the amount of the check, that was</p> <p>5 \$15,000, correct?</p> <p>6 A. The retainer check? Yes.</p> <p>7 Q. Yes, and the date of the invoice is October 19, 2017?</p> <p>8 A. Which invoice?</p> <p>9 MS. O'DELL: Object to the form.</p> <p>10 THE WITNESS: Which invoice?</p> <p>11 BY MR. HEGARTY:</p> <p>12 Q. Well, there's an invoice date listed at the bottom of</p> <p>13 the check of October 19, 2017. Do you see that?</p> <p>14 MS. O'DELL: I would just state for the</p> <p>15 record that there are no additional invoices, that that</p> <p>16 is my belief that data was put in by our Accounting</p> <p>17 Department when the request was made, so there's no</p> <p>18 invoice that has not been disclosed if that's --</p> <p>19 MR. HEGARTY: That was going to be my next</p> <p>20 question.</p> <p>21 The date of the check is November 2nd, 2017,</p> <p>22 correct?</p> <p>23 THE WITNESS: Correct.</p> <p>24 BY MR. HEGARTY:</p> <p>25 Q. And all these funds went to you, correct?</p>

11 (Pages 38 to 41)

Ghassan Saed, Ph.D.

<p style="text-align: right;">Page 42</p> <p>1 A. The 15,000?</p> <p>2 Q. Yes.</p> <p>3 A. Yes.</p> <p>4 SAED DEPOSITION EXHIBIT NUMBER 7,</p> <p>5 MOLECULAR BASIS SUPPORTING THE ASSOCIATION OF</p> <p>6 TALCUM POWDER USE WITH INCREASED RISK OF OVARIAN</p> <p>7 CANCER, WAS MARKED BY THE REPORTER</p> <p>8 FOR IDENTIFICATION</p> <p>9 BY MR. HEGARTY:</p> <p>10 Q. I'm going to mark next as Exhibit Number 7 a copy of a</p> <p>11 manuscript we've been provided, which I referenced</p> <p>12 earlier, the manuscript that I marked as Exhibit</p> <p>13 Number 7 is entitled Molecular Basis Supporting the</p> <p>14 Association of Talcum Powder Use With Increased Risk of</p> <p>15 Ovarian Cancer. Do you see what I'm referring to,</p> <p>16 Doctor?</p> <p>17 A. Yes.</p> <p>18 Q. First of all, is this the current version of the paper</p> <p>19 you submitted to Reproductive Sciences?</p> <p>20 A. Yes.</p> <p>21 Q. Do you have prior drafts of this paper in your office</p> <p>22 or in your possession?</p> <p>23 A. Do I have drafts?</p> <p>24 Q. Correct.</p> <p>25 A. Like --</p>	<p style="text-align: right;">Page 44</p> <p>1 submitted by the author section says January 3rd, 2019,</p> <p>2 which is after December 26, 2018. So my question is</p> <p>3 where is the manuscript that was submitted before</p> <p>4 December 26, 2018?</p> <p>5 A. Okay. So when you submit a manuscript, they return</p> <p>6 they usually give you some corrections or editing to</p> <p>7 do, and then you do the editing, and then you resubmit</p> <p>8 the manuscript, so I have both copies. Are you</p> <p>9 interested to see the one that went to revision versus</p> <p>10 the one after revision?</p> <p>11 Q. You have the copy that you initially sent to</p> <p>12 Reproductive Sciences which is the one referred to in</p> <p>13 the e-mail of December 26, 2018?</p> <p>14 A. Sure.</p> <p>15 Q. Are there only two drafts of the manuscript, the one</p> <p>16 you submitted prior to December 26, 2018 and the one we</p> <p>17 marked as Exhibit Number 7?</p> <p>18 A. For Reproductive Science, yes.</p> <p>19 Q. Have you made any revisions to the document that we</p> <p>20 have marked as Exhibit Number 7?</p> <p>21 A. Let's see if I remember, so this is the first -- which</p> <p>22 one is this, okay, because there is one original that</p> <p>23 we submitted.</p> <p>24 Q. Correct.</p> <p>25 A. Went to review, the reviewer asked for some</p>
<p style="text-align: right;">Page 43</p> <p>1 Q. Well, let me explain. Go to the very last page of</p> <p>2 Exhibit Number 7.</p> <p>3 A. Okay.</p> <p>4 Q. Very last page.</p> <p>5 A. Okay.</p> <p>6 Q. There's an e-mail there.</p> <p>7 A. Oh.</p> <p>8 Q. Of December 26, 2018, which would indicate that you</p> <p>9 submitted the paper in advance of that date, yet on the</p> <p>10 first page of Exhibit Number 7 it reports the date</p> <p>11 submitted by the author of January 3rd, 2019. So there</p> <p>12 must have been a prior manuscript submitted to</p> <p>13 Reproductive Sciences before Exhibit Number 7, correct?</p> <p>14 A. Hold on. I need to digest this. Can you repeat that,</p> <p>15 please?</p> <p>16 Q. Sure.</p> <p>17 A. What are we talking about?</p> <p>18 Q. The e-mail that you're looking at is dated December 26,</p> <p>19 2018, correct?</p> <p>20 A. Yes.</p> <p>21 Q. That e-mail refers to a manuscript you had submitted,</p> <p>22 which would have been submitted before that date,</p> <p>23 correct?</p> <p>24 A. Yes.</p> <p>25 Q. The first page of Exhibit Number 7 in the date</p>	<p style="text-align: right;">Page 45</p> <p>1 modification, I did it and resubmit it.</p> <p>2 Q. Is Exhibit Number -- I'm sorry, go ahead.</p> <p>3 A. So this, I can't remember is this the most recent one</p> <p>4 or not.</p> <p>5 Q. Did you bring a copy today?</p> <p>6 A. I have a copy.</p> <p>7 Q. You brought a copy from your office?</p> <p>8 A. Yeah, this is a copy from my office.</p> <p>9 Q. May I see it, please?</p> <p>10 A. Yes.</p> <p>11 SAED DEPOSITION EXHIBIT NUMBER 8,</p> <p>12 MOLECULAR BASIS SUPPORTING THE ASSOCIATION OF</p> <p>13 TALCUM POWDER USE WITH INCREASED RISK OF OVARIAN</p> <p>14 CANCER,</p> <p>15 WAS MARKED BY THE REPORTER</p> <p>16 FOR IDENTIFICATION</p> <p>17 BY MR. HEGARTY:</p> <p>18 Q. I'm going to mark as Exhibit Number 8 a copy of the</p> <p>19 article or manuscript that Dr. Saed just provided to</p> <p>20 me. At least the cover page contains the same date</p> <p>21 submitted by the author date. Would you look at the</p> <p>22 two Exhibit Number 7 and Exhibit Number 8, and tell me</p> <p>23 whether they are the same?</p> <p>24 A. Yeah, it looks the same to me.</p> <p>25 Q. So have there been any additional revisions to the</p>

12 (Pages 42 to 45)

Ghassan Saed, Ph.D.

Page 46	Page 48
<p>1 manuscript that we've marked as 7 and 8?</p> <p>2 A. No. We revised it according to the reviewer's comment</p> <p>3 and resubmitted it, and then it was officially</p> <p>4 accepted.</p> <p>5 Q. Did you submit the manuscript to any other journals?</p> <p>6 A. Prior to this?</p> <p>7 Q. Prior to this.</p> <p>8 A. Yes.</p> <p>9 Q. What journals did you submit to?</p> <p>10 A. OB-GYN Oncology.</p> <p>11 Q. When did you submit the manuscript to OB-GYN Oncology?</p> <p>12 A. I'm not good on dates.</p> <p>13 Q. You submitted it before --</p> <p>14 A. Prior.</p> <p>15 Q. Prior to submitting it to Reproductive Sciences?</p> <p>16 A. Correct.</p> <p>17 Q. Are you able to estimate when you completed the</p> <p>18 manuscript such that it could be submitted to a</p> <p>19 journal?</p> <p>20 A. I would say -- what's the date now -- September,</p> <p>21 October, September maybe around.</p> <p>22 Q. Did you get a response from OB-GYN Oncology to your</p> <p>23 submission?</p> <p>24 A. I did.</p> <p>25 Q. What was their response?</p>	<p>1 A. Correct.</p> <p>2 Q. They, based on correspondence with you, sent that paper</p> <p>3 to peer reviewers, correct?</p> <p>4 A. Correct.</p> <p>5 Q. How many peer reviewers did they send it to?</p> <p>6 A. I don't know.</p> <p>7 Q. How many comments back from peer reviewers did you</p> <p>8 receive, just by peer reviewer number?</p> <p>9 A. I know, but I'm trying to remember, maybe one or two, I</p> <p>10 can't remember, I think two.</p> <p>11 Q. You mentioned one of the comments was --</p> <p>12 A. But two that they commented. So usually they send it</p> <p>13 to more. If they have no comments, they don't include</p> <p>14 them.</p> <p>15 Q. One of the reviewers commented that you needed to do</p> <p>16 additional in vivo animal studies to show the same</p> <p>17 effect that you reported in cell cultures that you did,</p> <p>18 correct?</p> <p>19 MS. O'DELL: Object to form.</p> <p>20 THE WITNESS: No.</p> <p>21 BY MR. HEGARTY:</p> <p>22 Q. What did he say or she say?</p> <p>23 A. It was said that this is very exciting work,</p> <p>24 interesting work, has a biological relevance, it would</p> <p>25 be interesting to see if this can be shown in vivo.</p>
Page 47	Page 49
<p>1 A. That I needed to do in vivo, additional in vivo animal</p> <p>2 experiments.</p> <p>3 Q. That you needed to do additional in vivo animal</p> <p>4 experiments before they would agree to publish your</p> <p>5 paper; is that correct?</p> <p>6 A. No, they -- usually the basis of their rejection, this</p> <p>7 is a review of comment, not the editor request, so</p> <p>8 comments you can do, you can agree with or you can</p> <p>9 disagree with. So I always publish papers and I'm very</p> <p>10 familiar with this process. So there's a distinction</p> <p>11 between editor's opinion and reviewer's comment. So</p> <p>12 reviewer comments, they're not bound -- I'm not bound</p> <p>13 to their comments. I may agree with them and I may</p> <p>14 disagree with them. So the reviewer -- the editor,</p> <p>15 they usually, their policy, they use it based on</p> <p>16 reviewer's comment, that's part of the concentration,</p> <p>17 the other part will be the how many -- the volume, how</p> <p>18 many they receive and priority for the articles to be</p> <p>19 published.</p> <p>20 Q. So as to the chronology, you completed a draft of your</p> <p>21 manuscript that we marked as Exhibit Number 7 and 8,</p> <p>22 you submitted that manuscript initially to OB-GYN</p> <p>23 Oncology --</p> <p>24 A. Correct.</p> <p>25 Q. -- in the September 2018 time frame?</p>	<p>1 Q. Do you remember anything else that was said in those</p> <p>2 comments besides what you provided to us this morning?</p> <p>3 A. Yeah, they like it, they love my work.</p> <p>4 Q. Anything else you can recall from the comments?</p> <p>5 A. No, this is positive and it's good data that they need</p> <p>6 to -- complimented with.</p> <p>7 Q. So with regard to the comments, then what -- strike</p> <p>8 that. OB-GYN Oncology rejected your paper, correct?</p> <p>9 A. They said that -- yeah, they said that we don't want --</p> <p>10 priority at this time.</p> <p>11 Q. Did they say why they rejected your paper?</p> <p>12 A. They say we have lot of papers received by the journal</p> <p>13 and it's not a priority right now.</p> <p>14 Q. Do you have all the documents of your submission to</p> <p>15 OB-GYN Oncology and their -- the comments and other</p> <p>16 documents that you received back in connection with</p> <p>17 that submission?</p> <p>18 MS. O'DELL: Object to the form.</p> <p>19 BY MR. HEGARTY:</p> <p>20 Q. Yes?</p> <p>21 A. I want to see -- what's the question? Sorry.</p> <p>22 Q. Sure. Do you have the documentation, all the documents</p> <p>23 of your submission to OB-GYN Oncology and their</p> <p>24 response back?</p> <p>25 A. You mean the manuscript?</p>

13 (Pages 46 to 49)

Ghassan Saed, Ph.D.

Page 50	Page 52
<p>1 Q. The manuscript, your cover letter, the letter back, the</p> <p>2 comments, the comments you received back, do you have</p> <p>3 all that material?</p> <p>4 A. Yes.</p> <p>5 Q. Is that back in your office?</p> <p>6 A. It's in my office, yes. You talking about manuscript,</p> <p>7 right?</p> <p>8 Q. Well, the manuscript and the reviewer comments.</p> <p>9 A. And the reviewer comments, yes.</p> <p>10 Q. You chose not to do or try to replicate your results in</p> <p>11 an in vivo animal model, correct?</p> <p>12 A. No, it's not correct, I didn't choose, I just don't</p> <p>13 have the time to do it and the money.</p> <p>14 Q. Did you submit your manuscript to any other journals</p> <p>15 besides OB-GYN Oncology and Reproductive Sciences?</p> <p>16 A. No.</p> <p>17 Q. How did you choose to submit your journal first to</p> <p>18 OB-GYN Oncology? Why did you choose that journal?</p> <p>19 A. Those, the OB-GYN Oncology and Reproductive Sciences</p> <p>20 are the major societies for our specialty, and most</p> <p>21 readers -- OB-GYN readers read those two manuscripts, I</p> <p>22 mean journals.</p> <p>23 Q. Of your specialty, which specialty is that?</p> <p>24 A. Like our -- like in the field of OB-GYN research.</p> <p>25 Q. And what resource do you have that Reproductive</p>	<p>1 does it represent all the work that you did that went</p> <p>2 into the paper we marked as Exhibit Number 7?</p> <p>3 MS. O'DELL: Object to the form.</p> <p>4 THE WITNESS: So, yeah, so this part starting</p> <p>5 here, from here all the way to the end, that represents</p> <p>6 everything in the manuscript.</p> <p>7 BY MR. HEGARTY:</p> <p>8 Q. You're pointing to 30?</p> <p>9 A. From here, yes.</p> <p>10 MS. O'DELL: To the end.</p> <p>11 THE WITNESS: To the end.</p> <p>12 BY MR. HEGARTY:</p> <p>13 Q. What is contained in Pages 1 through 29?</p> <p>14 A. This is like preliminary trials that we were running,</p> <p>15 testing, so forth, the talc.</p> <p>16 Q. Do Pages 1 through 29 represent activities as part of</p> <p>17 the work that generated the results contained on</p> <p>18 Pages 30 thereafter?</p> <p>19 A. No.</p> <p>20 Q. What does it represent, then?</p> <p>21 A. It's a trial, it's a pilot experiment to tune-up the</p> <p>22 technique.</p> <p>23 Q. When did this -- this pilot experiment goes back, at</p> <p>24 least based on the date of the notebook, to 10-15-17?</p> <p>25 A. Correct.</p>
Page 51	Page 53
<p>1 Sciences is a journal that most in your specialty</p> <p>2 review or read?</p> <p>3 MS. O'DELL: Object to the form.</p> <p>4 THE WITNESS: I mean do I have a number? Or</p> <p>5 you mean the source where I got that from?</p> <p>6 BY MR. HEGARTY:</p> <p>7 Q. Yeah, where did you get that from?</p> <p>8 A. From my experience with them for the last 25 years.</p> <p>9 Q. Have you published in that journal before?</p> <p>10 A. Yes.</p> <p>11 Q. Have you published in OB-GYN Oncology before?</p> <p>12 A. Yes.</p> <p>13 Q. Is there such a thing as something called an impact</p> <p>14 factor of a journal?</p> <p>15 A. Correct.</p> <p>16 Q. Do you know what the impact factor is of Reproductive</p> <p>17 Sciences?</p> <p>18 A. About 3, 2.8 something.</p> <p>19 Q. How about OB-GYN Oncology?</p> <p>20 A. 4, the upper 5, the upper 4, 5, 4.6, 5 maybe.</p> <p>21 Q. We were also, as we talked earlier, provided with the</p> <p>22 original lab notebook that -- in connection with the</p> <p>23 article that you have submitted to Reproductive</p> <p>24 Sciences and that you submitted to OB-GYN Oncology. Is</p> <p>25 what we've designated as Exhibit Number 2 all of the --</p>	<p>1 Q. Is it -- do you always do pilot experiments before you</p> <p>2 do an experiment like this?</p> <p>3 A. Sure.</p> <p>4 Q. Why do you always do a pilot experiment?</p> <p>5 A. You need to figure out the right conditions, right</p> <p>6 concentration, the right incubation time.</p> <p>7 Q. And how does a pilot study provide that information?</p> <p>8 A. I don't understand what you mean.</p> <p>9 Q. How does a pilot study provide you with information to</p> <p>10 know you're using the right conditions, the right</p> <p>11 concentration?</p> <p>12 A. So when you use a concentration of 1,000 microgram per</p> <p>13 ml and it kills your cells, you know it's toxic, you</p> <p>14 should go lower.</p> <p>15 Q. Is that what you did here?</p> <p>16 A. Yes.</p> <p>17 Q. Do you do any other testing like that to determine the</p> <p>18 parameters of your later tests?</p> <p>19 A. Sorry, I don't understand.</p> <p>20 Q. Well the test you just described is sort of that it, it</p> <p>21 sort of set an upper limit of where you could go before</p> <p>22 you kill the cells, right?</p> <p>23 MS. O'DELL: Object.</p> <p>24 THE WITNESS: Just an example, I'm giving you</p> <p>25 an example.</p>

14 (Pages 50 to 53)

Ghassan Saed, Ph.D.

Page 54	Page 56
<p>1 BY MR. HEGARTY:</p> <p>2 Q. An example. Do you recall anything specific that you</p> <p>3 did in the pilot study that helped you define the</p> <p>4 parameters of the later study that you did?</p> <p>5 A. Other than the dose, most of the technology and the</p> <p>6 methods that we used, it's really standard in our</p> <p>7 laboratory, we have published them, we -- and not just</p> <p>8 us, it's standard accepted technology everywhere in</p> <p>9 this field.</p> <p>10 Q. And how did the pilot study that's reflected in Exhibit</p> <p>11 Number 2 inform you as to the studies -- study that you</p> <p>12 did that are reflected in the rest of the pages?</p> <p>13 A. Yes, so basically we looked at the dose here and this</p> <p>14 pilot study showing that the initial dose was high and</p> <p>15 it was like 500 microgram per ml to a thousand, that's</p> <p>16 how we started, and we figured out that this dose</p> <p>17 killed the cells and induced some toxicity, so this is</p> <p>18 why we learned from this, and then we turned up the</p> <p>19 CA-125 assay, this is turning up the assay to see how</p> <p>20 much you need to use. Is it from the media? Is it</p> <p>21 from the cell? You need to set up all this, and this</p> <p>22 is done in here, and it's described, it's not hidden,</p> <p>23 it's all over, it's all here. But we determined</p> <p>24 basically the dose, and we figured out what is toxic to</p> <p>25 the cells.</p>	<p>1 BY MR. HEGARTY:</p> <p>2 Q. Are you confident that it was one or the other?</p> <p>3 A. Yes.</p> <p>4 Q. The lab notebook that we've been provided marked as</p> <p>5 Exhibit Number 2 has a first date of 10-15-17. Is that</p> <p>6 the first date that there was any lab work done either</p> <p>7 in the pilot study or the later study?</p> <p>8 A. No.</p> <p>9 Q. What is the earliest date of work?</p> <p>10 A. May I have this?</p> <p>11 Q. Yeah, I'm handing you Exhibit Number 3.</p> <p>12 A. So the first work that we did with talc, 9-26.</p> <p>13 Q. Dr. Saed referred to Exhibit Number 3 and pointed me to</p> <p>14 a page that's dated 9-26. First of all, what is</p> <p>15 represented or contained in Exhibit Number 3, this lab</p> <p>16 notebook?</p> <p>17 A. So this part, okay, so I have to indicate something, we</p> <p>18 share lab notebook, we use them for -- so not</p> <p>19 necessarily one lab notebook for one project. So, for</p> <p>20 example, the first part of this lab notebook --</p> <p>21 MS. O'DELL: Which is Exhibit 3.</p> <p>22 THE WITNESS: -- which is Exhibit 3, looking</p> <p>23 at the effect of a dipeptide on adhesion markers, and</p> <p>24 then we continued with talc, so sometimes we mix up,</p> <p>25 like we don't necessarily use one project for one lab</p>
Page 55	Page 57
<p>1 Q. How did you come to start with the 500 milligram per</p> <p>2 milliliter dose?</p> <p>3 A. So we read in the literature prior experiments people</p> <p>4 did from 5 all the way to 1,000, and I found the paper</p> <p>5 after we did -- we thought first initial experiment we</p> <p>6 will hit the cells with high concentration, see what</p> <p>7 happened, and then titrate it down, but then we found</p> <p>8 it's toxic effect on the cells so -- and then I came</p> <p>9 across a paper where they used these small doses that</p> <p>10 they found biological effect with, and they used 5, 20</p> <p>11 and 100 and up to 500, so I chose the lower range,</p> <p>12 which is 5, 20, and 100 for my study.</p> <p>13 Q. What paper was that?</p> <p>14 A. That was -- do you have that paper --</p> <p>15 Q. Is that the Buz'Zard paper?</p> <p>16 A. Let me see, do you have the Buz'Zard --</p> <p>17 MS. O'DELL: It's right in your notebook</p> <p>18 there, Doctor.</p> <p>19 THE WITNESS: Where do I find it now here?</p> <p>20 MS. O'DELL: You might look in your</p> <p>21 references of your report.</p> <p>22 THE WITNESS: Right.</p> <p>23 MS. O'DELL: And then we can go from there.</p> <p>24 THE WITNESS: I think it's Buz'Zard or</p> <p>25 Shukla, one or the other, I can't remember.</p>	<p>1 notebook, okay. So this part of the notebook --</p> <p>2 BY MR. HEGARTY:</p> <p>3 Q. The first part?</p> <p>4 A. The first part is for the different study. This part</p> <p>5 where we started the actual work with talc.</p> <p>6 Q. When you -- you started referencing the pages, this</p> <p>7 part, then what does this part represent being done?</p> <p>8 A. This part was an experiment that we did exposing cells,</p> <p>9 ovarian cancer cells, to talc, Fisher, and look at</p> <p>10 oxidative stress markers. We used three ovarian cancer</p> <p>11 cell lines, and we used macrophages of normal</p> <p>12 epithelial cells. And the result of this work was</p> <p>13 submitted to Society of Reproductive Investigation</p> <p>14 meeting that was held last year March, yes, last year</p> <p>15 in San Diego, and you can see all the way down, this is</p> <p>16 the poster that resulted from this work.</p> <p>17 Q. The poster you pointed to is on Page 63?</p> <p>18 A. Yes.</p> <p>19 Q. Was there a pilot study done before doing this</p> <p>20 experiment?</p> <p>21 A. So this is a pilot study.</p> <p>22 Q. So the study that we are looking at dated -- with the</p> <p>23 start date of 9-26-2017 --</p> <p>24 A. Right.</p> <p>25 Q. -- you consider that to be a pilot study?</p>

15 (Pages 54 to 57)

Ghassan Saed, Ph.D.

<p style="text-align: right;">Page 58</p> <p>1 A. This is a -- we have many pilot studies. It depends on</p> <p>2 what marker you're doing the pilot study for. So</p> <p>3 there's a pilot study for CA-125. There is a pilot</p> <p>4 study for the dose. There is a pilot study for cells.</p> <p>5 So this is a pilot study.</p> <p>6 Q. In the other notebook you went from a pilot study to</p> <p>7 doing a subsequent study.</p> <p>8 A. Correct.</p> <p>9 Q. Did you do that with this pilot study?</p> <p>10 A. No, this is only done with -- this is a preliminary</p> <p>11 study that we did, and we only tested mRNA levels of</p> <p>12 some oxidative stress markers. The other study that</p> <p>13 you're referring to with the manuscript, this is a</p> <p>14 comprehensive study that looked at every fold of gene</p> <p>15 expression from mRNA to DNA to ELISA to activity of</p> <p>16 proteins, everything. This is just simply a pilot</p> <p>17 experiment looking at, yes, there is an effect, no,</p> <p>18 there is not an effect, and, yes, there is an effect,</p> <p>19 so we published it.</p> <p>20 Q. The first date of any study that you did with talc is</p> <p>21 September 26, 2017?</p> <p>22 A. Correct.</p> <p>23 Q. Who is involved in the study that we looked at in</p> <p>24 Exhibit Number 3 whose begin date was September 26,</p> <p>25 2017?</p>	<p style="text-align: right;">Page 60</p> <p>1 call from Miss Thompson, you would have still done</p> <p>2 these studies?</p> <p>3 A. Correct.</p> <p>4 Q. Were the studies in the works at the time that Miss</p> <p>5 Thompson called you?</p> <p>6 A. I was reviewing literature only.</p> <p>7 Q. You had not thought about doing actual laboratory</p> <p>8 studies before Miss Thompson had called you involving</p> <p>9 talc?</p> <p>10 A. I planned it before she called me.</p> <p>11 Q. You had actually planned to do laboratory studies?</p> <p>12 A. Correct.</p> <p>13 Q. Do you have any documentation of that plan?</p> <p>14 A. No.</p> <p>15 Q. Did you talk with anyone and tell them that your plan</p> <p>16 was to do studies involving talc before you were called</p> <p>17 by Miss Thompson?</p> <p>18 A. We always discussed talking about looking at any</p> <p>19 substance that induces inflammation and oxidative</p> <p>20 stress. So we always talk in the lab and with</p> <p>21 colleagues about any substance. Talc was brought up,</p> <p>22 yes.</p> <p>23 Q. To whom did you speak with about talc and doing an</p> <p>24 experiment about talc before you received a call from</p> <p>25 Miss Thompson?</p>
<p style="text-align: right;">Page 59</p> <p>1 A. That's Nicole King and Ira, and myself.</p> <p>2 Q. What prompted you to do this initial study?</p> <p>3 A. My lab interest is ovarian cancer and oxidative stress,</p> <p>4 we talked about that, I answered that, the media and,</p> <p>5 you know, what's going on, and this is the core of my</p> <p>6 lab specialty is looking at oxidative stress markers,</p> <p>7 inflammation, and ovarian cancer.</p> <p>8 Q. Is it your testimony that this study with the start</p> <p>9 date of 9-26-2017 was not prompted by your call with</p> <p>10 Miss Thompson?</p> <p>11 MS. O'DELL: Object to the call.</p> <p>12 THE WITNESS: Was not prompted?</p> <p>13 BY MR. HEGARTY:</p> <p>14 Q. Yes.</p> <p>15 MS. O'DELL: Object to the form.</p> <p>16 BY MR. HEGARTY:</p> <p>17 Q. In other words, you would not have done this study or</p> <p>18 the study for which you have submitted a manuscript to</p> <p>19 Reproductive Sciences if Miss Thompson had not called</p> <p>20 you, correct?</p> <p>21 MS. O'DELL: Object to the form.</p> <p>22 THE WITNESS: No, I was always interested in</p> <p>23 doing this.</p> <p>24 BY MR. HEGARTY:</p> <p>25 Q. So it's your testimony that if you had not gotten a</p>	<p style="text-align: right;">Page 61</p> <p>1 A. I discussed with Nicole.</p> <p>2 Q. When was that discussion?</p> <p>3 A. I can't remember dates, but we always discussed markers</p> <p>4 of oxidative stress.</p> <p>5 Q. Well, you said that you always talk in the lab and with</p> <p>6 colleagues about any substance. Talc was brought up.</p> <p>7 A. Correct.</p> <p>8 Q. What substances had you tested in your lab with regard</p> <p>9 to oxidative stress before your study about talc?</p> <p>10 A. We go backwards, we go looking at reducing oxidative</p> <p>11 stress and looking at mechanisms, or manipulating</p> <p>12 alteration of oxidative stress, like, for example, we</p> <p>13 did the work where we added a scavenger of Superoxide</p> <p>14 dismutase, which is a very powerful oxidant, and we</p> <p>15 looked at inducing apoptosis in ovarian cancer cells.</p> <p>16 We're looking at intervention, changing the cell redox</p> <p>17 balance, alteration of that balance, it is given, it's</p> <p>18 accepted in the literature and in our world that cancer</p> <p>19 cells and ovarian cancer cells included, they all have</p> <p>20 characterized by a pro-oxidant state that is given,</p> <p>21 it's known. So we don't need to show a substance that</p> <p>22 induces further that oxidative stress. We are looking</p> <p>23 for attenuating and modulating that oxidative stress</p> <p>24 and see the effect, the downstream effect. We have</p> <p>25 done that, we have published that with looking at SRNA</p>

16 (Pages 58 to 61)

Ghassan Saed, Ph.D.

Page 62	Page 64
<p>1 to shut down proteins, knock down proteins, we did it</p> <p>2 for myeloperoxidase, we did it for ionase, we did it</p> <p>3 for SOD so.</p> <p>4 Q. But prior to the call you received from Miss Thompson,</p> <p>5 you had never tested any particulate or exposed cells</p> <p>6 to any particulate and looked for oxidative stress,</p> <p>7 correct?</p> <p>8 A. No, not correct. I used hypoxia, induced hypoxia and</p> <p>9 look at normal cells.</p> <p>10 Q. What particles did you apply to cells in that study?</p> <p>11 A. Hypoxia.</p> <p>12 Q. What's hypoxia?</p> <p>13 A. It is the creation of a hypoxic micro environment into</p> <p>14 the cells. This can be in vivo induced by infection,</p> <p>15 by wound, by many other factors that do that.</p> <p>16 Q. Let me clarify my question, then. My question is what</p> <p>17 environmental particles that are not generated in vivo</p> <p>18 had you ever applied to cells and culture prior to the</p> <p>19 call from Miss Thompson?</p> <p>20 A. That we published? I don't -- like a given particle</p> <p>21 you're talking about?</p> <p>22 Q. Correct.</p> <p>23 A. No, I don't have any, I never done anything like that.</p> <p>24 Q. What studies had you actually planned on doing with</p> <p>25 talc before your call -- before the call came from Miss</p>	<p>1 Q. -- informal about putting a test together, correct?</p> <p>2 A. I said I was planning to do this.</p> <p>3 Q. Okay.</p> <p>4 A. I had a plan to do this.</p> <p>5 Q. Okay. What was your plan?</p> <p>6 A. This is the plan -- the plan -- okay, this is important</p> <p>7 to know, that I have this set up ready in my lab, ready</p> <p>8 to go. We have all the technology for all these</p> <p>9 markers. So it is not hard just to add -- so when I</p> <p>10 plan, it means I -- we had used the setup that I</p> <p>11 already have in my laboratory, that's what I -- in my</p> <p>12 plan.</p> <p>13 Q. But you had not done anything to further that plan?</p> <p>14 A. Physically, no.</p> <p>15 Q. Let me finish, you had not done anything to further</p> <p>16 that plan until after the call came from Miss Thompson,</p> <p>17 correct?</p> <p>18 A. Correct.</p> <p>19 Q. Did you discuss at all the makeup of the study or what</p> <p>20 you were going to do with the study or the methods of</p> <p>21 the study with Beasley Allen before you did them?</p> <p>22 A. No.</p> <p>23 Q. Did you have any discussions at all with attorneys for</p> <p>24 Beasley Allen about the concept of the study, the</p> <p>25 methods of the study, the protocol of the study, how</p>
Page 63	Page 65
<p>1 Thompson? Had you actually formed the framework of a</p> <p>2 study?</p> <p>3 A. No, I was just thinking about the overall, it would be</p> <p>4 interesting to see if this is -- this will induce</p> <p>5 inflammation in our cells, and if it does, then it</p> <p>6 should be linked to the risk of ovarian cancer, so</p> <p>7 thinking, just talking about it.</p> <p>8 Q. With regard to the manuscript that -- strike that.</p> <p>9 With regard to the tests that were part of the</p> <p>10 manuscript, those tests were done in connection with</p> <p>11 your communications with Beasley Allen, correct?</p> <p>12 A. Those tests?</p> <p>13 Q. Yes.</p> <p>14 A. What do you mean by communication?</p> <p>15 MS. O'DELL: Object to form.</p> <p>16 BY MR. HEGARTY:</p> <p>17 Q. Well, you talked with Beasley Allen about doing those</p> <p>18 tests, correct, before you did them?</p> <p>19 MS. O'DELL: Object to the form.</p> <p>20 THE WITNESS: No, I was planning to do them,</p> <p>21 anyways.</p> <p>22 BY MR. HEGARTY:</p> <p>23 Q. You just said, though, before the call you had not done</p> <p>24 anything formal or even --</p> <p>25 A. Yeah, I said --</p>	<p>1 the study was going to be done, anything like that?</p> <p>2 MS. O'DELL: Let me just stop you right</p> <p>3 there. I think when you're talking about conversations</p> <p>4 you -- you're talking about after the time that he's</p> <p>5 been engaged by Beasley Allen and those discussions</p> <p>6 would be protected by the privilege. I'm going to</p> <p>7 instruct the witness not to answer.</p> <p>8 MR. HEGARTY: Well, my questions are related</p> <p>9 solely to the manuscript, the testing in the manuscript</p> <p>10 that has been submitted to Reproductive Sciences. So</p> <p>11 is it your position that all the communications you had</p> <p>12 with regard to the tests done for purposes of the</p> <p>13 publication Reproductive Sciences and the writing of</p> <p>14 the article, submission of the article, are protected</p> <p>15 by the consulting privilege?</p> <p>16 MS. O'DELL: Well, and as you know, the</p> <p>17 substance of the manuscript largely is Dr. Saed's</p> <p>18 expert report, and the work that he did in terms of</p> <p>19 consulting was paid for by Beasley Allen and he was</p> <p>20 doing that as a part of the consulting arrangement.</p> <p>21 So, yes, to the degree he had conversations with the</p> <p>22 lawyers, we're going to -- I'm going to instruct him</p> <p>23 not to answer.</p> <p>24 MR. HEGARTY: I'm not going to argue with</p> <p>25 you. I just want to make sure I'm interesting that</p>

17 (Pages 62 to 65)

Ghassan Saed, Ph.D.

<p style="text-align: right;">Page 66</p> <p>1 that's -- that your objection extends to any question</p> <p>2 that I would ask with regard to communications with</p> <p>3 Beasley Allen or attorneys for the plaintiffs with</p> <p>4 regard to the creation of the study, the setup of the</p> <p>5 study, the protocol of the study, doing the study,</p> <p>6 writing the manuscript.</p> <p>7 MS. O'DELL: That was not, your question's a</p> <p>8 little bit different than what you just described. You</p> <p>9 can ask your questions, there may be some that are</p> <p>10 appropriate and some not, but as regard the question</p> <p>11 that's on the table, I think that's inappropriate and</p> <p>12 I've instructed him not to answer.</p> <p>13 BY MR. HEGARTY:</p> <p>14 Q. Dr. Saed, did you have any discussions with any</p> <p>15 attorneys for Beasley Allen regarding the pilot study</p> <p>16 that we talked about in Exhibit Number 3?</p> <p>17 A. What's Exhibit Number 3?</p> <p>18 Q. The one -- the study that's dated 9-26-2007.</p> <p>19 MS. O'DELL: Objection, vague.</p> <p>20 THE WITNESS: Again, okay, here is my answer.</p> <p>21 No one has interfered with the design of the study, how</p> <p>22 the study should be done, what assay should be applied,</p> <p>23 what method of analysis should be performed, the</p> <p>24 writing of the results, the analysis of the results,</p> <p>25 this is my world, this is my specialty. No one</p>	<p style="text-align: right;">Page 68</p> <p>1 Number --</p> <p>2 A. My lab.</p> <p>3 Q. Sorry let me finish.</p> <p>4 A. We already talked.</p> <p>5 Q. Who paid for the pilot study that's reported in Exhibit</p> <p>6 Number 3?</p> <p>7 MS. O'DELL: Object to the form, to the</p> <p>8 degree it's vague.</p> <p>9 MR. HEGARTY: You can answer.</p> <p>10 THE WITNESS: We discussed this, right?</p> <p>11 BY MR. HEGARTY:</p> <p>12 Q. Now, the before questions, at least I thought, were</p> <p>13 limited to the lab costs for -- and personnel costs for</p> <p>14 the study in exhibit -- in the first notebook, Number</p> <p>15 2. Did those lab costs reflected in that exhibit,</p> <p>16 which is Exhibit Number 5, also cover the pilot study</p> <p>17 that's in notebook that we marked as Exhibit Number 3?</p> <p>18 A. The answer, my lab is paid for -- paid for all the</p> <p>19 studies that we did.</p> <p>20 Q. The --</p> <p>21 A. Yeah, you can go back five days later.</p> <p>22 Q. Exhibit Number 5 reports the costs of the talc project</p> <p>23 dated from October 1st, 2017. This pilot study began</p> <p>24 on September 26, 2017 correct?</p> <p>25 A. Correct.</p>
<p style="text-align: right;">Page 67</p> <p>1 interfered with that.</p> <p>2 BY MR. HEGARTY:</p> <p>3 Q. I appreciate that. That was not my question. My</p> <p>4 question was simply did you have any discussions with</p> <p>5 attorneys for Beasley Allen or attorneys for plaintiffs</p> <p>6 in this case with regard to conducting the pilot study</p> <p>7 that's in Exhibit Number 3 with the start date of</p> <p>8 9-26-2017?</p> <p>9 A. They know that I'm doing this.</p> <p>10 Q. Did they know that you were doing it at the time that</p> <p>11 you were doing it?</p> <p>12 A. At this time?</p> <p>13 Q. Yes.</p> <p>14 A. Yes.</p> <p>15 Q. Did you have discussions in advance of doing that study</p> <p>16 with them?</p> <p>17 A. I actually designed this whole thing. So when they</p> <p>18 approached me and I got -- you know, I told them this</p> <p>19 is what I'm going to do, this is what I have in mind,</p> <p>20 we have all this setup in my lab and I want to do it,</p> <p>21 and I did it.</p> <p>22 Q. Did they provide to you any suggestions on how to do</p> <p>23 this study?</p> <p>24 A. They don't know nothing about this.</p> <p>25 Q. Who paid for the pilot study that's reported in Exhibit</p>	<p style="text-align: right;">Page 69</p> <p>1 Q. Is it your testimony that the costs of the pilot study</p> <p>2 are included in what's listed in Exhibit Number 5?</p> <p>3 MS. O'DELL: Object to the form.</p> <p>4 THE WITNESS: We started the -- culturing the</p> <p>5 cells, so the idea -- are you talking about the actual</p> <p>6 money? We started -- yes, it is included there.</p> <p>7 BY MR. HEGARTY:</p> <p>8 Q. You shook your head. I want to make sure I got it on</p> <p>9 the record.</p> <p>10 A. Yes.</p> <p>11 Q. So the costs for the pilot study in Exhibit Number 3</p> <p>12 that began on September 26, 2017, are contained in</p> <p>13 Exhibit Number 5?</p> <p>14 A. Correct. It takes three weeks to get the cells up and</p> <p>15 going.</p> <p>16 MR. HEGARTY: Want to take a break? We've</p> <p>17 been going for about an hour and 20 minutes. Take a</p> <p>18 break.</p> <p>19 THE VIDEOGRAPHER: Going off the record at</p> <p>20 10:32 a.m.</p> <p>21 (A short recess was taken.)</p> <p>22 THE VIDEOGRAPHER: We're back on the record</p> <p>23 at 10:51 a.m.</p> <p>24 BY MR. HEGARTY:</p> <p>25 Q. Dr. Saed, when we left off, we were talking about any</p>

18 (Pages 66 to 69)

Ghassan Saed, Ph.D.

Page 70	Page 72
<p>1 communication you had with Beasley Allen or other 2 attorneys for the plaintiffs with regard to the 3 experiments that you did or the preparation of the 4 manuscript that you've submitted to Reproductive 5 Sciences. Over the course of the time that you did the 6 experiments, that you did the writing, that you 7 submitted to Reproductive Sciences, OB-GYN Oncology, 8 did you exchange any e-mails or letters with attorneys 9 for Beasley Allen or the plaintiffs with regard to the 10 testing, the writing, the submission of the manuscript? 11 MS. O'DELL: Objection to form. 12 THE WITNESS: Can you please repeat the 13 question, clarify what you -- 14 BY MR. HEGARTY: 15 Q. Sure. Well, during the time that you were doing the 16 testing that we've been talking about? 17 A. Experiments. 18 Q. -- that's reflected in the lab notebooks, you call them 19 experiments, in the time that you wrote the paper that 20 you first submitted to OB-GYN Oncology and then later 21 to Reproductive Sciences. Did you have communications 22 with attorneys for Beasley Allen or any plaintiff in 23 this litigation regarding the experiments or regarding 24 the writing of the article or regarding the submission 25 of the article to journals?</p>	<p>1 the manuscript, the submission of the manuscript; is 2 that correct? 3 MS. O'DELL: Object to the form. 4 BY MR. HEGARTY: 5 Q. You can answer. 6 A. I said -- I answered you. I said I did not discuss the 7 design of the experiments, the results of the 8 experiments, where to submit it, how to analyze the 9 data, all this work I did myself. 10 Q. Understood. I'm not asking if they provided input on 11 how to do it or how to write it or where to send it. 12 I'm asking if you had discussions with any attorney for 13 Beasley Allen or any other attorney for Plaintiff over 14 the course of doing all this work about what you were 15 doing? 16 A. I still don't understand discussion, what does the 17 discussion mean? 18 Q. Well, discussion means a phone call, an in-person 19 meeting, an e-mail? 20 A. Oh. 21 Q. Any communication that talks about what you're doing. 22 MS. O'DELL: Excuse me, you may answer the 23 question whether calls or meetings occurred, you may 24 answer that yes or no, but you cannot divulge the 25 discussions or the topics that were included in those</p>
Page 71	Page 73
<p>1 A. No. 2 Q. Did you have any telephone calls or meetings during 3 the -- about the experiments or the writing of the 4 manuscript for the journals or the submission of the 5 journals with attorneys for Beasley Allen or any 6 plaintiff in this litigation? 7 MS. O'DELL: Objection to the form. 8 THE WITNESS: No. 9 MS. O'DELL: I was just going to instruct you 10 to the degree that you're asking him about subjects 11 that were discussed in meetings with attorneys for the 12 plaintiff, don't discuss those, the subject matter 13 because those, they're not entitled to know those 14 discussions, so to the degree you can answer your 15 questions outside those parameters, you may. 16 THE WITNESS: My answer was no for any 17 discussion related to the design of the experiments, 18 the results of the work, the submission to the journal, 19 which journal to submit to, writing the manuscript, all 20 that work I know the answer was no to that work. 21 BY MR. HEGARTY: 22 Q. So as to everything you just described, you had no 23 discussions with the attorneys for Beasley Allen or any 24 plaintiffs in this case about anything dealing with 25 experiments, the design, the protocol the writing of</p>	<p>1 discussions. 2 THE WITNESS: Yes, so calls, we did calls. 3 BY MR. HEGARTY: 4 Q. And what were the -- what did you discuss with the 5 attorneys for Beasley Allen or the plaintiffs during 6 those calls with regard to the experiments you were 7 doing or the writing of the manuscript or the 8 submission of the journal? 9 MS. O'DELL: I'm going to instruct you not to 10 answer that question. 11 MR. HEGARTY: We object to that instruction 12 and believe that that is an inappropriate objection and 13 instruction that's not covered by the consultant 14 privilege, but we're not going to decide it here, 15 understand that, but I just want to make it clear on 16 the record that we don't agree that your objection 17 covers the kind of communications that I asked the 18 doctor. 19 MS. O'DELL: Well, the privilege covers 20 communications, whether written or verbal, in person or 21 on the telephone, during Dr. Saed's consulting 22 relationship with the plaintiffs and that's what you've 23 asked him and that's what I'm objecting to. 24 MR. HEGARTY: I understand the objection. We 25 don't agree with the objection.</p>

Ghassan Saed, Ph.D.

<p style="text-align: right;">Page 74</p> <p>1 MS. O'DELL: I want to make sure the record</p> <p>2 is clear.</p> <p>3 MR. HEGARTY: And I'm making for the record</p> <p>4 that we don't agree with the objection and dispute the</p> <p>5 propriety of it and object to you instructing the</p> <p>6 doctor not to respond. With regard to this -- the work</p> <p>7 we've been talking about, the pilot study with talc,</p> <p>8 that's reflected in the -- and the other studies with</p> <p>9 talc that's reflected in the two notebooks, have you</p> <p>10 prepared any other manuscripts related to those</p> <p>11 experiments that you intend to submit to any journal?</p> <p>12 THE WITNESS: Other than submitted abstracts</p> <p>13 to different meetings, no.</p> <p>14 BY MR. HEGARTY:</p> <p>15 Q. Have you prepared abstracts or do you intend to prepare</p> <p>16 abstracts or have you submitted abstracts regarding the</p> <p>17 work reflected in the two notebooks that have not yet</p> <p>18 been disseminated?</p> <p>19 A. Disseminated means --</p> <p>20 MS. O'DELL: Object to form.</p> <p>21 BY MR. HEGARTY:</p> <p>22 Q. Well, as we're going to look at here today, there are</p> <p>23 some abstracts where you describe the work that you're</p> <p>24 doing, the experiments that you did. Do you currently</p> <p>25 have in the works any abstracts that have not yet been</p>	<p style="text-align: right;">Page 76</p> <p>1 MS. O'DELL: This is not your updated CV</p> <p>2 actually, this is the one --</p> <p>3 THE WITNESS: I can find it for you. It's an</p> <p>4 obstetrics and gynecology online, open access online.</p> <p>5 BY MR. HEGARTY:</p> <p>6 Q. Who within -- for that publication asked you to write</p> <p>7 an editorial?</p> <p>8 A. The editorial office.</p> <p>9 Q. And when did that request come in?</p> <p>10 A. I think two weeks ago.</p> <p>11 Q. And editorial on what?</p> <p>12 A. On talc and oxidative stress.</p> <p>13 Q. Have you started writing it?</p> <p>14 A. Not yet.</p> <p>15 Q. Do you intend to do so?</p> <p>16 A. Yes.</p> <p>17 Q. Did they give you a date --</p> <p>18 A. No.</p> <p>19 Q. -- for submission?</p> <p>20 MS. O'DELL: Let him finish his question,</p> <p>21 please, Doctor.</p> <p>22 BY MR. HEGARTY:</p> <p>23 Q. Did they give you a date for providing -- did they give</p> <p>24 you a date for providing the editorial?</p> <p>25 A. No.</p>
<p style="text-align: right;">Page 75</p> <p>1 published or provided to anyone?</p> <p>2 MS. O'DELL: Object to the form.</p> <p>3 BY MR. HEGARTY:</p> <p>4 Q. Do you understand the question?</p> <p>5 A. Not really.</p> <p>6 Q. Well, do you currently have any abstracts that you're</p> <p>7 working on that you intend to submit?</p> <p>8 A. Now I understood. In relation to --</p> <p>9 Q. The experiments --</p> <p>10 A. In relation to the talc project?</p> <p>11 Q. Correct.</p> <p>12 A. The answer is no.</p> <p>13 Q. Do you have any other written work in process relating</p> <p>14 to the talc experiments that you intend to either turn</p> <p>15 into an abstract or turn into a journal article?</p> <p>16 A. I was asked to write an editorial to one of the</p> <p>17 journals and I am planning to do that.</p> <p>18 Q. Who asked you to write an editorial to a journal?</p> <p>19 A. The journal.</p> <p>20 Q. What journal?</p> <p>21 A. OB-GYN, let me see, I can find the exact name for you,</p> <p>22 which I'm planning to do. It's an open access journal</p> <p>23 obstetrics and gynecology it's in my CV somewhere --</p> <p>24 trying to find it for you -- where is it -- this is my</p> <p>25 updated CV?</p>	<p style="text-align: right;">Page 77</p> <p>1 Q. Is the editorial going to be in response to a journal</p> <p>2 article or another publication?</p> <p>3 A. It is in response to the published abstracts that I did</p> <p>4 online.</p> <p>5 Q. And with regard to the open access publication, is that</p> <p>6 a publication that's only available on the internet?</p> <p>7 A. Open access, yes.</p> <p>8 Q. Is that a publication which you have to pay to have</p> <p>9 your materials published on the internet?</p> <p>10 A. All open access journals you have to pay, yes.</p> <p>11 Q. You will have to pay to have your editorial published?</p> <p>12 A. Yes.</p> <p>13 Q. How much does that cost?</p> <p>14 A. Not too much like, 3, \$400.</p> <p>15 MR. LOCKE: Could we ask the witness to speak</p> <p>16 up.</p> <p>17 MS. O'DELL: They don't have access to a</p> <p>18 speaker, so they're just listening to you over there,</p> <p>19 so if you could raise your voice.</p> <p>20 THE WITNESS: 4, \$500, 400 to 500 -- where is</p> <p>21 that --</p> <p>22 MS. O'DELL: That's okay.</p> <p>23 MR. HEGARTY: We're past that question,</p> <p>24 Doctor.</p> <p>25 THE WITNESS: Thank you.</p>

Ghassan Saed, Ph.D.

Page 78	Page 80
<p>1 BY MR. HEGARTY:</p> <p>2 Q. We were provided some additional materials this morning</p> <p>3 that I wanted to make sure I mark for the record and</p> <p>4 follow up on a few things in those materials. I'm</p> <p>5 going to mark as Exhibit Number 10 what was represented</p> <p>6 to us today to be the index for the lab notebook that</p> <p>7 we marked as Exhibit Number 2, that's the notebook that</p> <p>8 has the experiments in it that went into your</p> <p>9 manuscript.</p> <p>10 SAED DEPOSITION EXHIBIT NUMBER 10,</p> <p>11 INDEX FOR LAB NOTEBOOK,</p> <p>12 WAS MARKED BY THE REPORTER</p> <p>13 FOR IDENTIFICATION</p> <p>14 BY MR. HEGARTY:</p> <p>15 Q. And I'll show you -- make sure we have the right lab</p> <p>16 note --</p> <p>17 MR. LAPINSKI: Counsel, is there an Exhibit 9</p> <p>18 marked?</p> <p>19 MR. HEGARTY: Oh, I skipped over Exhibit 9.</p> <p>20 I'll go back to it.</p> <p>21 THE WITNESS: So this and this.</p> <p>22 BY MR. HEGARTY:</p> <p>23 Q. Yes, you looked at Exhibit 2 compared to Exhibit 10.</p> <p>24 Is that the index to Exhibit 2?</p> <p>25 A. Yes.</p>	<p>1 A. That's the answer.</p> <p>2 Q. Let me look at the notebook. There are pages --</p> <p>3 there's 21 and then there is a 22, 23, and a 24 that's</p> <p>4 not referenced in the index. Why is that?</p> <p>5 A. Because those are figures. They could be referenced.</p> <p>6 Q. But they have page numbers on them.</p> <p>7 A. Sure.</p> <p>8 Q. And you otherwise list page numbers here that are also</p> <p>9 just pages that contained figures, correct?</p> <p>10 A. Correct.</p> <p>11 Q. Why are these pages not referenced in the index?</p> <p>12 A. I don't know.</p> <p>13 Q. There are also --</p> <p>14 A. Maybe --</p> <p>15 Q. I'm sorry.</p> <p>16 A. Maybe -- we have it, we labeled it.</p> <p>17 Q. But they're not included in the index.</p> <p>18 A. Maybe just missed here.</p> <p>19 Q. There are also a number of pages that have been cut out</p> <p>20 of Exhibit Number 2 that -- where the pages go from 24</p> <p>21 to 29, and there are clearly pages in between that</p> <p>22 appear to have either been cut out by a razor or by</p> <p>23 some other cutting instrument. First of all, what was</p> <p>24 on those pages?</p> <p>25 A. Okay, so as I mentioned earlier, we do not specify one</p>
Page 79	Page 81
<p>1 Q. With regard to the index there, on the index, Doctor,</p> <p>2 Exhibit 10, the pages after 21 you jump to 31. What</p> <p>3 happened to Pages 22 to 29 -- I'm sorry, 22 to 30?</p> <p>4 MS. O'DELL: I'm sorry, are you referring to</p> <p>5 Exhibit 10 or --</p> <p>6 MR. HEGARTY: Yes, Exhibit 10, the pages go</p> <p>7 20-21, then jump to 31-32, and my question is where are</p> <p>8 Pages 22 to 30?</p> <p>9 THE WITNESS: 22, you said?</p> <p>10 BY MR. HEGARTY:</p> <p>11 Q. Yes.</p> <p>12 A. 22, 23, 24, 29. Oh, so there's -- yeah, you talking</p> <p>13 about the tore apart?</p> <p>14 Q. We'll get to that part in a second. First of all, why</p> <p>15 aren't Pages 22 to 29 listed in the index or at least a</p> <p>16 portion of those?</p> <p>17 MS. O'DELL: Object to the form.</p> <p>18 THE WITNESS: 31 -- 21 -- 21, 31, what</p> <p>19 happened, 21, yeah, there is nothing after that, right?</p> <p>20 BY MR. HEGARTY:</p> <p>21 Q. Well, on Exhibit Number 10 it jumps from 21 to 31, and</p> <p>22 where are the nine or ten pages in between those?</p> <p>23 A. Yeah, that's what I'm talking about, those are -- you</p> <p>24 want me to answer for the missing pages?</p> <p>25 Q. Well, I'll get to that first but --</p>	<p>1 lab notebook to a specific study. So my research</p> <p>2 technician by a mistake added a different project here,</p> <p>3 and because this is talc, there is a litigation and</p> <p>4 lawyers and all that, we had to remove it and we have</p> <p>5 to specialize in that lab notebook just for this work.</p> <p>6 Q. What other project was represented or documented in</p> <p>7 those pages that were removed from this lab notebook?</p> <p>8 A. It's a different project than talc.</p> <p>9 Q. What was the project or what is the project?</p> <p>10 MS. O'DELL: You mean the subject matter?</p> <p>11 BY MR. HEGARTY:</p> <p>12 Q. The subject matter.</p> <p>13 A. The same, reactive oxygen species, inflammation in</p> <p>14 ovarian cancer.</p> <p>15 Q. What are you looking at in that other project?</p> <p>16 A. I can't remember, but I can find out.</p> <p>17 Q. Does it involve exposure to any environmental</p> <p>18 particulate?</p> <p>19 A. No.</p> <p>20 Q. Do you know when the pages that we've been talking</p> <p>21 about were removed from this lab notebook?</p> <p>22 A. I don't remember.</p> <p>23 Q. Were you aware that they had been removed?</p> <p>24 A. Yes.</p> <p>25 Q. Have you ever in your experiences in conducting a lab</p>

21 (Pages 78 to 81)

Ghassan Saed, Ph.D.

Page 82	Page 84
<p>1 cut out pages of a lab notebook?</p> <p>2 A. Have I ever done that? No.</p> <p>3 Q. That's not good laboratory practice, is it?</p> <p>4 MS. O'DELL: Objection to form.</p> <p>5 THE WITNESS: Yes, I -- the reason I told</p> <p>6 you, I just told you the reason why we did that.</p> <p>7 BY MR. HEGARTY:</p> <p>8 Q. But my question is that's not proper laboratory</p> <p>9 practice to cut out pages of a lab book, is it?</p> <p>10 MS. O'DELL: Object to the form.</p> <p>11 THE WITNESS: We didn't cut the notes from</p> <p>12 them, we just wanted to keep the talc study separate.</p> <p>13 BY MR. HEGARTY:</p> <p>14 Q. Understood, but I'm talking about good laboratory</p> <p>15 practices, and good laboratory practices don't sanction</p> <p>16 or allow for you to cut out pages of a laboratory</p> <p>17 notebook, do they?</p> <p>18 MS. O'DELL: Object to the form.</p> <p>19 THE WITNESS: We, as you can see, we're not</p> <p>20 hiding it.</p> <p>21 BY MR. HEGARTY:</p> <p>22 Q. I'm not asking if you're hiding it. I'm asking you, do</p> <p>23 you -- is it your testimony that cutting lab -- cutting</p> <p>24 pages out of a lab notebook is consistent with good</p> <p>25 laboratory practice?</p>	<p>1 Q. And Nicole King again is who?</p> <p>2 A. My research post doc.</p> <p>3 Q. Then on the other lab notebook that contained -- that</p> <p>4 was on Exhibit 2. Exhibit 3 on the outside is</p> <p>5 something called Temple 1. What does that mean?</p> <p>6 A. That's a project that we did for Temple Pharmaceutical</p> <p>7 in our lab.</p> <p>8 Q. That's a project that's -- that's the project that's in</p> <p>9 the first part of the lab notebook?</p> <p>10 A. Correct.</p> <p>11 SAED DEPOSITION EXHIBIT NUMBER 9,</p> <p>12 PILOT STUDY,</p> <p>13 WAS MARKED BY THE REPORTER</p> <p>14 FOR IDENTIFICATION</p> <p>15 BY MR. HEGARTY:</p> <p>16 Q. Also provided today, which I'll mark as Exhibit</p> <p>17 Number 9, are copies of what I believe to be the pilot</p> <p>18 study that's contained in Exhibit Number 3. Would you</p> <p>19 look at Exhibit Number 9 and compare to Exhibit</p> <p>20 Number 3, and tell me whether Exhibit Number 9 are the</p> <p>21 pages copied from Exhibit Number 3, the pilot project</p> <p>22 we talked about earlier along with the index?</p> <p>23 A. Yes.</p> <p>24 Q. On the first page of -- or strike that. On Page 1 of</p> <p>25 Exhibit Number 2 there's a statement at the very</p>
Page 83	Page 85
<p>1 MS. O'DELL: Object to the form.</p> <p>2 THE WITNESS: I didn't say that.</p> <p>3 BY MR. HEGARTY:</p> <p>4 Q. You agree it's not consistent with good laboratory</p> <p>5 practice, don't you?</p> <p>6 MS. O'DELL: Object to the form.</p> <p>7 THE WITNESS: I don't agree.</p> <p>8 BY MR. HEGARTY:</p> <p>9 Q. You don't agree with what?</p> <p>10 A. Okay, I told you the reason why we removed those pages.</p> <p>11 Q. Did you instruct someone to cut those pages out of this</p> <p>12 notebook?</p> <p>13 A. My lab research assistant was doing different project.</p> <p>14 She was writing it here in the middle of this lab</p> <p>15 notebook. I asked her let's remove it, continue so we</p> <p>16 can keep this lab notebook independent.</p> <p>17 Q. But the other lab notebook you prepared you left in the</p> <p>18 pages of the other project, you didn't cut those out,</p> <p>19 correct?</p> <p>20 A. No, because this was a preliminary results and that was</p> <p>21 continued, not in the middle, it was continued, so we</p> <p>22 only used like few pages from the book.</p> <p>23 Q. The lab notebooks contain on the outside, at least one</p> <p>24 of them, Nicole King Talc Study, do you see that?</p> <p>25 A. I do.</p>	<p>1 beginning that says tried to dissolve talc Fisher 74 --</p> <p>2 or Fisher T4-500 lot numbers 166820 in Johnson &</p> <p>3 Johnson Baby Powder. Do you see that reference? Do</p> <p>4 you see where I'm reading?</p> <p>5 A. You're reading wrong. What is in?</p> <p>6 Q. In.</p> <p>7 A. That's not in.</p> <p>8 Q. What is that word?</p> <p>9 A. That's or.</p> <p>10 Q. Or Johnson's Baby Powder, okay, and it says it won't</p> <p>11 completely dissolve. What does that mean?</p> <p>12 A. It won't completely dissolve.</p> <p>13 Q. What was the extent of its -- that it dissolved?</p> <p>14 A. Partial.</p> <p>15 MS. O'DELL: Object to form.</p> <p>16 THE WITNESS: Yeah, so, okay, so you need to</p> <p>17 know the percentage of how much it's dissolved?</p> <p>18 BY MR. HEGARTY:</p> <p>19 Q. How much is dissolved as reflected in Page 1.</p> <p>20 A. Nothing dissolved.</p> <p>21 Q. Whose handwriting is on Page 1?</p> <p>22 A. This is Nicole I think, I think.</p> <p>23 Q. Whose handwriting is throughout Exhibit Number 2?</p> <p>24 A. This?</p> <p>25 Q. Throughout the exhibit.</p>

22 (Pages 82 to 85)

Ghassan Saed, Ph.D.

Page 86	Page 88
<p>1 A. Some Nicole, some others, my research assistant.</p> <p>2 Q. Who else's handwriting besides Nicole's are in Exhibit</p> <p>3 Number 2?</p> <p>4 A. My research assistant.</p> <p>5 Q. Who is that?</p> <p>6 A. Flory, her name is Flory, Flory Rong, I think she's</p> <p>7 part of the authors, yes, her name is, okay, this is</p> <p>8 the right -- correction, Fan Rong.</p> <p>9 MS. O'DELL: How do you spell that?</p> <p>10 THE WITNESS: It's here, F-a-n and then</p> <p>11 R-o-n-g.</p> <p>12 BY MR. HEGARTY:</p> <p>13 Q. Isn't it Rong Fan, Doctor?</p> <p>14 A. Rong Fan? The first name is --</p> <p>15 Q. First name is Rong, right?</p> <p>16 A. I think it's the other way around, I'm not expert on</p> <p>17 names.</p> <p>18 Q. Who is Mr. Rong?</p> <p>19 A. Mrs.</p> <p>20 Q. Mrs. Rong who is that?</p> <p>21 A. She is my research assistant.</p> <p>22 Q. How long has she been your research assistant?</p> <p>23 A. From I believe the beginning of '18.</p> <p>24 Q. But you don't know her name?</p> <p>25 A. I know her name, Flory, we call her Flory.</p>	<p>1 Q. Does that mean there could be instances where work was</p> <p>2 done on that date but then entered later in the lab</p> <p>3 notebook?</p> <p>4 A. Okay, so let me explain how we do this. So we run our</p> <p>5 experiments and we have everything, as you see here,</p> <p>6 electronically, and we -- it's a matter of -- practice</p> <p>7 of cutting and pasting it in the lab notebook, but</p> <p>8 everything is done in electronically.</p> <p>9 Q. When was this lab notebook, Exhibit Number 2, prepared?</p> <p>10 A. I don't know, exact dates?</p> <p>11 Q. Correct.</p> <p>12 A. I don't know, I can't remember.</p> <p>13 Q. Well, the date -- the dates run from 10-15-17 to --</p> <p>14 A. All the way to --</p> <p>15 Q. All the way to --</p> <p>16 A. -- October.</p> <p>17 Q. -- October or so of 2018. So was this notebook</p> <p>18 prepared over that entire period of time?</p> <p>19 A. Yes.</p> <p>20 Q. It wasn't prepared, put together in its entirety four</p> <p>21 weeks ago?</p> <p>22 A. Some of it was, yes.</p> <p>23 Q. What portions were put together four weeks ago?</p> <p>24 A. I think the one related to the last portion.</p> <p>25 Q. Can you point to me the pages that were put together in</p>
Page 87	Page 89
<p>1 Q. What's her full name?</p> <p>2 A. This is her full name, how she officially write, it's</p> <p>3 on the paper.</p> <p>4 Q. And is it -- according to you, is her name Fan Rong?</p> <p>5 A. I call her Flory.</p> <p>6 Q. Do you know her name?</p> <p>7 A. That's her name.</p> <p>8 Q. And how do you pronounce it?</p> <p>9 A. Rong Fan, I never called her with this name.</p> <p>10 Q. Who else's handwriting is contained in Exhibit</p> <p>11 Number 2?</p> <p>12 A. Some would be mine.</p> <p>13 Q. Who else?</p> <p>14 A. That's it.</p> <p>15 Q. Were all the entries in Exhibit Number 2 prepared at</p> <p>16 the time that the work was done?</p> <p>17 A. No.</p> <p>18 Q. When you say no, does that mean that there was work</p> <p>19 done and then the -- later on entries were made in the</p> <p>20 lab notebook?</p> <p>21 A. Correct.</p> <p>22 Q. How much later -- strike that. If the entries have a</p> <p>23 certain date on them, does that mean that they were</p> <p>24 entered on that date or the work was done on that date?</p> <p>25 A. Work was done on that date.</p>	<p>1 the last month or so?</p> <p>2 A. I can't really exactly remember, but the last, I would</p> <p>3 say, the statistical part for sure.</p> <p>4 Q. Starting on what page?</p> <p>5 A. I'm trying to find it. So starting on Page 114, this</p> <p>6 is the statistics of the study, all the way to 19 --</p> <p>7 122, 124, so all the way to the end, which is 124.</p> <p>8 This part, it's created by or done by a</p> <p>9 biostatistician, and this is all you can see</p> <p>10 electronics, so we just cut and pasted there.</p> <p>11 Q. So if you go to Page 114, that has a date of October 6,</p> <p>12 2018. Is it your testimony that this was not prepared</p> <p>13 on that date but was prepared later and then back dated</p> <p>14 to say October 6, 2018?</p> <p>15 MS. O'DELL: Object to the form, misstates</p> <p>16 his testimony.</p> <p>17 BY MR. HEGARTY:</p> <p>18 Q. You can answer.</p> <p>19 MS. O'DELL: If you understand the question.</p> <p>20 THE WITNESS: What's the question?</p> <p>21 BY MR. HEGARTY:</p> <p>22 Q. Sure. You see the date at the top of that page of</p> <p>23 October 6, 2018, correct?</p> <p>24 A. Correct.</p> <p>25 Q. Was this page prepared on that date or was it prepared</p>

23 (Pages 86 to 89)

Ghassan Saed, Ph.D.

Page 90	Page 92
<p>1 at a time later than that but dated October 6, 2018?</p> <p>2 MS. O'DELL: Object to the form.</p> <p>3 THE WITNESS: Okay, so this -- I can't</p> <p>4 remember when we did the statistics, but this date</p> <p>5 reflects when the statistics was actually done.</p> <p>6 BY MR. HEGARTY:</p> <p>7 Q. So in this instance, the statistics were done on</p> <p>8 October 6, 2018, but was the page prepared later than</p> <p>9 that after October 6, 2018?</p> <p>10 A. The pages, yes.</p> <p>11 Q. With regard to other entries in the notebook that have</p> <p>12 dates, can you tell whether those pages were created on</p> <p>13 the date listed on the page or were they created later</p> <p>14 but backdated to the date the work occurred?</p> <p>15 MS. O'DELL: Objection to form.</p> <p>16 THE WITNESS: Yeah, so, again, we do the</p> <p>17 experiment, sometimes it takes a week or two to write</p> <p>18 it in the notebook because we have the data</p> <p>19 electronically, so I cannot tell you the exact date</p> <p>20 when they were put in.</p> <p>21 BY MR. HEGARTY:</p> <p>22 Q. All the data that is reflected in Exhibit Number 2 is</p> <p>23 kept in electronic format?</p> <p>24 A. Yes.</p> <p>25 Q. Does that electronic format still exist?</p>	<p>1 January 2018, and I'll direct you to Page --</p> <p>2 A. 51.</p> <p>3 Q. Page 53.</p> <p>4 A. Of this notebook?</p> <p>5 Q. Of the notebook.</p> <p>6 A. So one more time, the question.</p> <p>7 Q. Turn to Page 53 of Exhibit Number 2.</p> <p>8 A. 53?</p> <p>9 Q. Yes.</p> <p>10 A. Okay.</p> <p>11 Q. There's a couple dates at the top of January 3rd, 2018</p> <p>12 and, also, do you see January 7, 2018 at the top?</p> <p>13 MS. O'DELL: Excuse me, Mark, what Bates</p> <p>14 Number?</p> <p>15 MR. HEGARTY: I'm looking at -- I'm using the</p> <p>16 page numbers in the lower right-hand corner.</p> <p>17 THE WITNESS: 53?</p> <p>18 BY MR. HEGARTY:</p> <p>19 Q. 53.</p> <p>20 A. On this date?</p> <p>21 Q. Yes, 1-7-18. What I'm trying to find out is when was</p> <p>22 the first date that you did --</p> <p>23 MS. O'DELL: What's the Bates Number on the</p> <p>24 document?</p> <p>25 MR. HEGARTY: The Bates Number is 25.</p>
Page 91	Page 93
<p>1 A. Yes.</p> <p>2 Q. Is the data in that electronic format all dated and is</p> <p>3 the date the date the data was generated?</p> <p>4 MS. O'DELL: Objection to form.</p> <p>5 BY MR. HEGARTY:</p> <p>6 Q. You're pointing to an example.</p> <p>7 A. An example.</p> <p>8 Q. What page is that on?</p> <p>9 A. June 19.</p> <p>10 Q. What page is that on, Doctor?</p> <p>11 A. This is Page -- oh, no, that's -- which page was</p> <p>12 this --</p> <p>13 Q. It's in the lower right-hand corner.</p> <p>14 A. I just noticed -- no, it's this one. Like, for</p> <p>15 example, if you find the dates that are here, these</p> <p>16 dates reflect the time we did the experiment.</p> <p>17 Q. Can you stop at a page and give me an example?</p> <p>18 A. I'm trying to find one. So this is February --</p> <p>19 Page 73, if you look here, it says February -- so</p> <p>20 small, February 20th, is that --</p> <p>21 Q. Yes, 2018.</p> <p>22 A. Right. So that's the date, and that's the date that is</p> <p>23 this experiment performed.</p> <p>24 Q. With regard to the experiments that you did for your</p> <p>25 manuscript, did those experiments begin in</p>	<p>1 MS. O'DELL: Okay.</p> <p>2 BY MR. HEGARTY:</p> <p>3 Q. When is the first date that you started the -- when did</p> <p>4 you start the experiments that you then report in your</p> <p>5 manuscript?</p> <p>6 A. It says right there, January 3rd we seeded the cells,</p> <p>7 started the experiment.</p> <p>8 Q. If you go to Page 2 using the Bates -- let me switch</p> <p>9 you over to the Bates Numbers because that's what I had</p> <p>10 to work from.</p> <p>11 A. Okay.</p> <p>12 Q. Let me show you Exhibit Number 1, that's a copy of the</p> <p>13 notebook that we've been looking at, Exhibit Number 2.</p> <p>14 A. Okay. Page 2?</p> <p>15 Q. Look at Page 2 of Bates Number --</p> <p>16 MS. O'DELL: When he says Bates Number, he's</p> <p>17 referring to the very small number to the right-hand</p> <p>18 side that's been -- yes --</p> <p>19 THE WITNESS: Where does it say Page 2? Oh,</p> <p>20 sorry, okay. Page 2?</p> <p>21 BY MR. HEGARTY:</p> <p>22 Q. Yes, and that has a date of January 24, 2018?</p> <p>23 A. Yes.</p> <p>24 Q. Do you see that?</p> <p>25 A. Yes.</p>

24 (Pages 90 to 93)

Ghassan Saed, Ph.D.

Page 94	Page 96
<p>1 Q. Then if you go through the next several pages through</p> <p>2 to Page 23 by Bates Number --</p> <p>3 A. Yes.</p> <p>4 Q. -- that's dated March 2nd, 2018. Do you see that?</p> <p>5 A. Yes.</p> <p>6 Q. Then if you go to Page 25, I'm sorry, if you go to</p> <p>7 Page 53 --</p> <p>8 A. It's January 7.</p> <p>9 Q. Well, then you go Page 25 you see January 7, which is</p> <p>10 not in the same order. So the book doesn't appear to</p> <p>11 be in chronologic order, is that correct?</p> <p>12 A. Okay, let me answer this. Here is the answer. So we</p> <p>13 have sections, this is a PCR section, we left some</p> <p>14 pages blank, next section is ELISA section, because</p> <p>15 we're doing the experiments simultaneously, so we</p> <p>16 wanted to separate each section, so the PCR section we</p> <p>17 created, we designated certain pages, and then we have</p> <p>18 ELISA section, and then we have other sections. So</p> <p>19 every time we do the experiment, we add to the section.</p> <p>20 That's why the dates are not in chronological order.</p> <p>21 Q. Okay. If you look at Bates Number 78, Doctor, that</p> <p>22 page is dated June 29, 2018?</p> <p>23 A. This one?</p> <p>24 Q. Yes.</p> <p>25 A. Yes.</p>	<p>1 BY MR. HEGARTY:</p> <p>2 Q. Sure. As we just looked at, the graphs are all -- and</p> <p>3 tables and charts are all dated, correct?</p> <p>4 A. Correct.</p> <p>5 Q. Were they added to the notebook at the time they were</p> <p>6 created or were they added later?</p> <p>7 A. Which graph you referring to?</p> <p>8 Q. Any of the tables where the -- that have been pasted</p> <p>9 in, were they pasted in at the time they were created</p> <p>10 or later?</p> <p>11 MS. O'DELL: Object to the form, asked and</p> <p>12 answered.</p> <p>13 THE WITNESS: So you are saying if this graph</p> <p>14 was created the same time that --</p> <p>15 BY MR. HEGARTY:</p> <p>16 Q. We're looking at Page 87, and you're pointing to a</p> <p>17 graph, and my question is with regard to the graph, was</p> <p>18 it pasted in the notebook on the day it was generated?</p> <p>19 MS. O'DELL: Objection, asked and answered.</p> <p>20 THE WITNESS: I really can't remember, but we</p> <p>21 have this electronically.</p> <p>22 BY MR. HEGARTY:</p> <p>23 Q. Doctor, if you go to Page 4, Bates Number 4, which</p> <p>24 corresponds to Page 33 of the notebook --</p> <p>25 A. This?</p>
Page 95	Page 97
<p>1 Q. See that date?</p> <p>2 A. I imagine it better if I see the notebook.</p> <p>3 Q. Then if you turn over to Bates 86.</p> <p>4 A. 86. 86 that's a different section.</p> <p>5 Q. Okay. There's a date on there of September 4, 2018,</p> <p>6 looked like there was a break between June 29th and</p> <p>7 September 4.</p> <p>8 A. Look at the original here, see that's a section, it's a</p> <p>9 different section.</p> <p>10 Q. To the extent that there are periods of time where</p> <p>11 there is no activity going on, that there might be a</p> <p>12 month between data entries, does that mean that there's</p> <p>13 no work going on at that time?</p> <p>14 A. No, no, no, we do simultaneously different, like we do</p> <p>15 PCR, we do ELISA, we do proliferation, all that</p> <p>16 studies, and we divided this notebook into sections,</p> <p>17 and as we go, we added to the corresponding section, so</p> <p>18 you can -- yeah.</p> <p>19 Q. And were all the graphs in the notebook provided at a</p> <p>20 later time or were they provided at the time they were</p> <p>21 created?</p> <p>22 MS. O'DELL: Objection to form.</p> <p>23 THE WITNESS: Yeah, I don't really understand</p> <p>24 the question.</p> <p>25</p>	<p>1 Q. -- there appears to be a reference on Page 33 that</p> <p>2 says go to Page 35. Do you see that?</p> <p>3 A. Okay.</p> <p>4 Q. How can you know to go to Page 35 when you're on</p> <p>5 Page 33 and 35 is not yet created?</p> <p>6 A. Oh, okay, good question. So this is established</p> <p>7 protocol, we do this -- this is not like the first time</p> <p>8 we're doing this, this is done repeatedly over years</p> <p>9 and years and years with different publication. This</p> <p>10 is the setup how we write it, so this is like something</p> <p>11 we predicting to happen, this we already know, that's</p> <p>12 the protocol, we just sticking it here.</p> <p>13 Q. You're anticipating that when you prepare -- strike</p> <p>14 that. When you prepared Page 33, you're anticipating</p> <p>15 that you were going to --</p> <p>16 A. Discuss it.</p> <p>17 Q. -- discuss it in Page 35?</p> <p>18 A. Yes.</p> <p>19 Q. Are the page numbers that you've added at the bottom in</p> <p>20 handwriting, are those made in the beginning of the</p> <p>21 work or are they added as you go? In other words, do</p> <p>22 you start with a notebook that's blank and then just</p> <p>23 simply number the pages before you start the work or</p> <p>24 you do it after the fact?</p> <p>25 A. We do it both ways, I don't remember.</p>

25 (Pages 94 to 97)

Ghassan Saed, Ph.D.

<p style="text-align: right;">Page 98</p> <p>1 Q. There's -- the writing I pointed to is in blue ink</p> <p>2 versus the other writing, which is in black ink. Was</p> <p>3 that blue ink added at the time that 33 was created or</p> <p>4 was it added later?</p> <p>5 A. I don't remember.</p> <p>6 Q. Do you know whose handwriting --</p> <p>7 A. Yeah, this is Rong -- what's her name, Mrs. Rong.</p> <p>8 Q. Okay. If you look again back at Page 4 of the Bates</p> <p>9 Stamped copy.</p> <p>10 A. Page 4.</p> <p>11 Q. That's Exhibit Number 1.</p> <p>12 A. Same page, 4? That's 4.</p> <p>13 Q. Same Page 4, which is Page 33 of the lab notebook,</p> <p>14 okay?</p> <p>15 A. Same page.</p> <p>16 Q. There is a portion of that notebook page that is whited</p> <p>17 out, correct, and written over?</p> <p>18 A. Yeah, I see that.</p> <p>19 Q. What was whited out?</p> <p>20 A. (Shrugs shoulders.)</p> <p>21 Q. Do you know?</p> <p>22 A. I don't know. Again, this is an established procedure</p> <p>23 that had been published with several, 100 papers over.</p> <p>24 Q. Well, what established procedure can you cite me to</p> <p>25 that says that it's proper laboratory practice to white</p>	<p style="text-align: right;">Page 100</p> <p>1 BY MR. HEGARTY:</p> <p>2 Q. That's not proper laboratory practice, is it?</p> <p>3 A. No. What I said is really simple. She probably did a</p> <p>4 mistake and then she whited out and wrote over it.</p> <p>5 Q. Proper laboratory practice is to line through it so the</p> <p>6 information that was there is still visible, and then</p> <p>7 include the data somewhere else so everything is</p> <p>8 transparent, correct?</p> <p>9 MS. O'DELL: Object to the form.</p> <p>10 THE WITNESS: The information that she whited</p> <p>11 out has nothing to do with the results or anything.</p> <p>12 This is just describing an established methodology that</p> <p>13 is published in all of our papers.</p> <p>14 MR. KLATT: Objection, form, unresponsive.</p> <p>15 MR. HEGARTY: Understood, but the proper</p> <p>16 laboratory practice would be to line through it so it</p> <p>17 could still be visible, and then add the corrected or</p> <p>18 additional information, correct?</p> <p>19 MS. O'DELL: Object to the form.</p> <p>20 THE WITNESS: My response, as I told you,</p> <p>21 this is something that she probably misspelled or</p> <p>22 mistake she did, she thought she was doing something,</p> <p>23 writing something, she wrote different, you know, we're</p> <p>24 doing different experiment different time, same times.</p> <p>25 MR. KLATT: Objection, form, nonresponsive.</p>
<p style="text-align: right;">Page 99</p> <p>1 out information and then write over it?</p> <p>2 MS. O'DELL: Object to the form.</p> <p>3 THE WITNESS: If you like write something</p> <p>4 like a mistake or a typo and you write it over.</p> <p>5 BY MR. HEGARTY:</p> <p>6 Q. Can you cite for me any --</p> <p>7 A. Cite?</p> <p>8 Q. -- published guidelines or laboratory methods that say</p> <p>9 that that's a proper approach to preparing a lab</p> <p>10 notebook?</p> <p>11 MS. O'DELL: Objection to form.</p> <p>12 THE WITNESS: Yeah, umm, what we did here I</p> <p>13 think -- this is her handwriting and --</p> <p>14 MS. O'DELL: When you say "her," who are you</p> <p>15 referring to?</p> <p>16 THE WITNESS: Rong, Mrs. Rong, so nothing</p> <p>17 really that alarmed me or directed my attention to</p> <p>18 anything. She wrote what she supposed to write. Maybe</p> <p>19 she did a mistake.</p> <p>20 BY MR. HEGARTY:</p> <p>21 Q. Doctor, would you ever in preparing a lab notebook</p> <p>22 white out information that's been written in a lab</p> <p>23 notebook and then write over it?</p> <p>24 MS. O'DELL: Object to the form.</p> <p>25 THE WITNESS: Typically I don't do that, no.</p>	<p style="text-align: right;">Page 101</p> <p>1 BY MR. HEGARTY:</p> <p>2 Q. Doctor, listen to my question. The proper laboratory</p> <p>3 practice would be to line through what she whited over</p> <p>4 so that it would still be visible, and then add</p> <p>5 whatever other information she wanted to add to this</p> <p>6 page, correct?</p> <p>7 A. If it's related to data.</p> <p>8 Q. So this is not proper, this whiting out is not proper</p> <p>9 laboratory practice, correct?</p> <p>10 MS. O'DELL: Let him finish his question, and</p> <p>11 give me a moment to object. Object to the form.</p> <p>12 You may answer if you remember his question.</p> <p>13 THE WITNESS: What I am trying to tell you,</p> <p>14 if it's something to do with data it is not proper to</p> <p>15 do, but this is -- this even shouldn't be in the</p> <p>16 notebook, we can reference that, it is something that</p> <p>17 we do in our laboratory so we can be detailed, it's</p> <p>18 about the procedure, the method, which is already</p> <p>19 published.</p> <p>20 BY MR. HEGARTY:</p> <p>21 Q. But good laboratory practice --</p> <p>22 A. It has nothing to do --</p> <p>23 Q. Let me finish, Doctor -- good laboratory practice,</p> <p>24 whether it's data or otherwise, dictates that you not</p> <p>25 white out any information that's put in a lab notebook;</p>

26 (Pages 98 to 101)

Ghassan Saed, Ph.D.

<p style="text-align: right;">Page 102</p> <p>1 rather, you're to line through it so it's still</p> <p>2 visible, correct?</p> <p>3 MS. O'DELL: Object to the form.</p> <p>4 THE WITNESS: I just told you what I feel.</p> <p>5 This is an established method, it's nothing to do with</p> <p>6 the data, this is just describing standard methodology,</p> <p>7 with it or without it, doesn't change anything.</p> <p>8 BY MR. HEGARTY:</p> <p>9 Q. So are you okay or fine with the whiting out of</p> <p>10 information in this lab notebook as was done here?</p> <p>11 MS. O'DELL: Objection to form.</p> <p>12 THE WITNESS: What I'm -- am I fine with</p> <p>13 that?</p> <p>14 BY MR. HEGARTY:</p> <p>15 Q. Yes.</p> <p>16 A. I prefer that does not happen, but it happened and she</p> <p>17 did it, but that doesn't change anything.</p> <p>18 Q. Above that whited out area there's an arrow pointing to</p> <p>19 100 milligrams talc, after the arrow it says Johnson</p> <p>20 Baby Powder. Do you see where I'm referring to,</p> <p>21 Doctor?</p> <p>22 A. Yes.</p> <p>23 Q. Whose handwriting is that?</p> <p>24 A. I think it's Flory.</p> <p>25 Q. Was that information added later than the time this</p>	<p style="text-align: right;">Page 104</p> <p>1 that. Do you see that?</p> <p>2 A. I do.</p> <p>3 Q. Whose handwriting is reflected by the addition of</p> <p>4 Johnson & Johnson, et cetera?</p> <p>5 A. I think it's Flory, Rong.</p> <p>6 Q. What was under -- what did she write over?</p> <p>7 A. I don't know, I wasn't there when she wrote this, but</p> <p>8 when I looked at it I confirmed that this is what we</p> <p>9 did.</p> <p>10 Q. Well, did she write over Fisher Scientific talc?</p> <p>11 A. Could be.</p> <p>12 Q. But did you actually test Fisher Scientific talc</p> <p>13 instead of Johnson & Johnson and then alter the lab</p> <p>14 notebook?</p> <p>15 MS. O'DELL: Objection, form.</p> <p>16 THE WITNESS: We actually did both.</p> <p>17 BY MR. HEGARTY:</p> <p>18 Q. You agree it's not proper practice, as reflected here,</p> <p>19 to white out information in a lab notebook where it</p> <p>20 can't be read and then write over it, correct?</p> <p>21 MS. O'DELL: Objection to form.</p> <p>22 THE WITNESS: You keep asking me the same</p> <p>23 question. I'm answering you the same way. She did the</p> <p>24 mistakes, to the best of her ability that's what she</p> <p>25 thought she will do, and I left it because I don't want</p>
<p style="text-align: right;">Page 103</p> <p>1 page was prepared?</p> <p>2 A. No.</p> <p>3 Q. Can you tell when that information was added to Page 33</p> <p>4 or Bates Number Page 4?</p> <p>5 MS. O'DELL: Objection to the form.</p> <p>6 THE WITNESS: When we prepared the page.</p> <p>7 BY MR. HEGARTY:</p> <p>8 Q. Why was it added in a way that put it out of order and</p> <p>9 had to have a line directing it to another part of the</p> <p>10 page?</p> <p>11 A. That's what we did.</p> <p>12 Q. Why was it not included there in the first place?</p> <p>13 MS. O'DELL: Objection, asked and answered.</p> <p>14 BY MR. HEGARTY:</p> <p>15 Q. You don't know?</p> <p>16 A. I don't know.</p> <p>17 Q. If you look next at Bates Stamp Page 25, which is</p> <p>18 Page 53 of the lab notebook, there is another portion</p> <p>19 that has been whited out and written over. Do you see</p> <p>20 that?</p> <p>21 A. Yes, I see it.</p> <p>22 Q. What was whited out?</p> <p>23 A. I don't know.</p> <p>24 Q. Something was whited out and the name Johnson & Johnson</p> <p>25 number 30027477 lot number 13717RA was written over</p>	<p style="text-align: right;">Page 105</p> <p>1 to change it.</p> <p>2 BY MR. HEGARTY:</p> <p>3 Q. Did you talk to her about the propriety of whiting out</p> <p>4 data?</p> <p>5 A. Yes, I did.</p> <p>6 Q. What did you tell her?</p> <p>7 A. I said we should not white out just write underneath</p> <p>8 it.</p> <p>9 Q. When did you have that discussion with her?</p> <p>10 A. After I saw this.</p> <p>11 Q. When did you see it?</p> <p>12 A. I think -- I don't remember.</p> <p>13 Q. Did you see it in the last two weeks?</p> <p>14 A. No, no, no, way before.</p> <p>15 Q. Is it proper methodology for creating -- for doing</p> <p>16 experiments and creating a lab book to white -- start</p> <p>17 over. Is it proper methodology in doing experiments</p> <p>18 like this in creating the lab book that corresponds</p> <p>19 with those experiments to white out information and</p> <p>20 then write over it?</p> <p>21 MS. O'DELL: Objection to form.</p> <p>22 BY MR. HEGARTY:</p> <p>23 Q. In your opinion?</p> <p>24 MS. O'DELL: Objection to form.</p> <p>25 THE WITNESS: So I just told you we did</p>

27 (Pages 102 to 105)

Ghassan Saed, Ph.D.

<p style="text-align: right;">Page 106</p> <p>1 not -- with the information that is here is accurate,</p> <p>2 we voluntarily did that.</p> <p>3 BY MR. HEGARTY:</p> <p>4 Q. I'm not asking you if the information is accurate with</p> <p>5 my question. My question is, is it proper methodology</p> <p>6 in doing experiments like this and in creating the lab</p> <p>7 notebook that corresponds to those experiments to write</p> <p>8 out information and write over it, in your opinion?</p> <p>9 MS. O'DELL: Object to the form.</p> <p>10 THE WITNESS: I mean it's -- in my personal</p> <p>11 opinion?</p> <p>12 BY MR. HEGARTY:</p> <p>13 Q. Correct.</p> <p>14 A. I think if you report that this is what actually</p> <p>15 happened and a mistake happened and this is, to her</p> <p>16 knowledge, this is the best way to handle it, she</p> <p>17 handled it.</p> <p>18 Q. So you consider the --</p> <p>19 A. And I talked to her about it and --</p> <p>20 Q. Do you consider the way she handled it to be proper</p> <p>21 laboratory methodology?</p> <p>22 A. That's why I told you, I talked to her about it so I</p> <p>23 don't.</p> <p>24 Q. May I see the notebook?</p> <p>25 A. Sure.</p>	<p style="text-align: right;">Page 108</p> <p>1 MS. O'DELL: Object to form.</p> <p>2 THE WITNESS: I didn't cover it, I just</p> <p>3 showed it to you.</p> <p>4 BY MR. HEGARTY:</p> <p>5 Q. I'm talking about in the creation of a lab book,</p> <p>6 though, is it considered proper methodology to take a</p> <p>7 printout from a test and paste over text in the lab</p> <p>8 notebook?</p> <p>9 MS. O'DELL: Object to the form.</p> <p>10 THE WITNESS: I just told you. So my answer</p> <p>11 is the information that she decided to hide this that</p> <p>12 you're talking about is an established methodology in</p> <p>13 my lab that doesn't even need to be here. She chose</p> <p>14 to just -- over it for a space limitation, that's all,</p> <p>15 but it's not hidden, you can see it.</p> <p>16 BY MR. HEGARTY:</p> <p>17 Q. Thank you.</p> <p>18 A. If we hide it, we can -- we don't have to have it</p> <p>19 there.</p> <p>20 Q. That information, though, was not photocopied and</p> <p>21 provided to us in advance of the deposition, correct?</p> <p>22 A. What information?</p> <p>23 Q. The information that was covered by that chart.</p> <p>24 MS. O'DELL: Object to the form.</p> <p>25 THE WITNESS: I know, I see, there is no</p>
<p style="text-align: right;">Page 107</p> <p>1 Q. Doctor, I'm looking at Page 102 of the notebook,</p> <p>2 Exhibit Number 2, which is Bates 78. If you want to</p> <p>3 look at it --</p> <p>4 A. Okay, yes, I see it.</p> <p>5 Q. -- either in Exhibit 1 or Exhibit 2. There appears to</p> <p>6 be something that has been covered over by the table</p> <p>7 that's been pasted there because I see some handwriting</p> <p>8 on the far right-hand column, and I don't want to pull</p> <p>9 that up, but what is under that table or that chart?</p> <p>10 A. The answer is I don't know. But I'll find out. It's a</p> <p>11 description of the method.</p> <p>12 Q. I just want to note for the record that the doctor is</p> <p>13 pulling the table up and --</p> <p>14 A. Yeah.</p> <p>15 Q. Okay.</p> <p>16 A. Do you want to see what's written under?</p> <p>17 Q. Yes.</p> <p>18 A. Okay. I want to see, also. Okay. So this is just the</p> <p>19 oligonucleotide primers and the cyclin for the PCR,</p> <p>20 this is very standard protocol that you don't need to</p> <p>21 even show, it's a methodology, so it doesn't really</p> <p>22 need to even show that.</p> <p>23 Q. So, in your opinion, is it proper laboratory practice</p> <p>24 in creating a lab book to cover up information that's</p> <p>25 included in a lab book by a table or a chart?</p>	<p style="text-align: right;">Page 109</p> <p>1 information covered by that chart, that is not needed</p> <p>2 to be there.</p> <p>3 BY MR. HEGARTY:</p> <p>4 Q. But there is information that's been covered, correct?</p> <p>5 MS. O'DELL: Object to the form.</p> <p>6 THE WITNESS: I answered, I said there is not</p> <p>7 relevant information that is covered, intentionally</p> <p>8 covered.</p> <p>9 BY MR. HEGARTY:</p> <p>10 Q. Over on Page 103 of Exhibit Number 2, Bates Number 79,</p> <p>11 there is another or other words that have been whited</p> <p>12 out. What are those other words?</p> <p>13 MS. O'DELL: Object to the form.</p> <p>14 THE WITNESS: I mean I can read the word.</p> <p>15 BY MR. HEGARTY:</p> <p>16 Q. What is the word?</p> <p>17 A. It says sample something.</p> <p>18 Q. Why was that whited out?</p> <p>19 A. Maybe it doesn't belong here.</p> <p>20 Q. Do you know why it was whited out?</p> <p>21 A. I think it doesn't belong here.</p> <p>22 Q. Who whited it out?</p> <p>23 A. Flory.</p> <p>24 Q. Is that whiteout okay to you in terms of doing a</p> <p>25 proper -- having a proper methodology for preparing a</p>

28 (Pages 106 to 109)

Ghassan Saed, Ph.D.

<p style="text-align: right;">Page 110</p> <p>1 lab notebook?</p> <p>2 MS. O'DELL: Objection to the form.</p> <p>3 THE WITNESS: I prefer without it but it's</p> <p>4 what it is.</p> <p>5 BY MR. HEGARTY:</p> <p>6 Q. Doctor, would you look at Exhibit Number 1 at Bates</p> <p>7 Stamp 57, please.</p> <p>8 A. Exhibit Number -- this is --</p> <p>9 Q. Yes, what you have in front of you.</p> <p>10 A. 57?</p> <p>11 Q. Correct. That corresponds to Page 84 of the lab</p> <p>12 notebook. There is now in the lab notebook a table</p> <p>13 that is pasted there that appears to have been removed</p> <p>14 from the page that we received that was photocopied and</p> <p>15 is part of Exhibit Number 1. Can you explain why our</p> <p>16 copy does not include that table?</p> <p>17 MS. O'DELL: Object to the form.</p> <p>18 THE WITNESS: No idea.</p> <p>19 BY MR. HEGARTY:</p> <p>20 Q. Okay.</p> <p>21 A. But it's here.</p> <p>22 Q. Well, do you know what else --</p> <p>23 A. This is this.</p> <p>24 Q. Do you know what other charts were removed from the</p> <p>25 copy that we received?</p>	<p style="text-align: right;">Page 112</p> <p>1 someone to copy this notebook?</p> <p>2 A. To scan the notebook.</p> <p>3 Q. Who did you instruct to do that?</p> <p>4 A. Flory, my research assistant.</p> <p>5 Q. And did you instruct her to remove this table on</p> <p>6 Page 84?</p> <p>7 A. Absolutely not.</p> <p>8 Q. Do you know why it's not there?</p> <p>9 A. No idea, but the marks of this one are showing, and the</p> <p>10 graph is showing, so this should show up, I don't know</p> <p>11 why it's not showing up.</p> <p>12 Q. I'm going to direct you to Bates Stamp Page 62.</p> <p>13 A. Same thing.</p> <p>14 Q. Which is -- which corresponds to handwritten Page</p> <p>15 Number 87, there again is a chart --</p> <p>16 A. You referring to this one or this one?</p> <p>17 Q. I'm referring to 87, there again in the copy portion at</p> <p>18 the upper part of the page there is a table or a chart</p> <p>19 that is not included in the copy we've been given. Do</p> <p>20 you know why that is the case?</p> <p>21 MS. O'DELL: Objection to the form.</p> <p>22 THE WITNESS: So I think this is probably</p> <p>23 technical through scanning, I have no idea the answer</p> <p>24 is.</p> <p>25</p>
<p style="text-align: right;">Page 111</p> <p>1 A. No one removed anything.</p> <p>2 MS. O'DELL: Excuse me, when you say this is</p> <p>3 this, I don't know that that's clear on the record</p> <p>4 because you're pointing to the notebook.</p> <p>5 THE WITNESS: This is the results and this is</p> <p>6 the graph from the results.</p> <p>7 BY MR. HEGARTY:</p> <p>8 Q. Well, can you explain to us if this page was copied and</p> <p>9 included in Exhibit Number 1, why this chart is not in</p> <p>10 Exhibit Number 1?</p> <p>11 A. No idea.</p> <p>12 Q. You agree that --</p> <p>13 A. When we scanned it probably didn't show up, I don't</p> <p>14 know.</p> <p>15 Q. Well, you would agree that it would had to have been</p> <p>16 removed, correct; otherwise it would appear on the</p> <p>17 paper?</p> <p>18 A. I don't agree.</p> <p>19 Q. Well, you can tell on the copy that there are places</p> <p>20 there that look like where tape had appeared, correct?</p> <p>21 MS. O'DELL: Object to the form.</p> <p>22 THE WITNESS: So same thing here, tape</p> <p>23 appeared and it's there.</p> <p>24 BY MR. HEGARTY:</p> <p>25 Q. Did you instruct -- strike that. Did you instruct</p>	<p style="text-align: right;">Page 113</p> <p>1 BY MR. HEGARTY:</p> <p>2 Q. Then under --</p> <p>3 A. But we do have all the data.</p> <p>4 Q. Under that table there appears to be some very vague</p> <p>5 what appears to be handwriting. Can you explain what</p> <p>6 that is? That again is on Bates Stamp 62, Page 87 of</p> <p>7 the original lab notebook.</p> <p>8 A. I don't know what that is.</p> <p>9 Q. Doctor, is this lab notebook typical of the lab</p> <p>10 notebooks you generate for all the experiments you've</p> <p>11 conducted?</p> <p>12 MS. O'DELL: Object to the form.</p> <p>13 THE WITNESS: What do you mean by typical?</p> <p>14 BY MR. HEGARTY:</p> <p>15 Q. Well, is this -- the things we've talked about here</p> <p>16 this morning, would those same things appear in all the</p> <p>17 lab notebooks that you prepare as part of your</p> <p>18 experiments?</p> <p>19 MS. O'DELL: Object to the form.</p> <p>20 THE WITNESS: So for -- most of our</p> <p>21 experiments are documented in a lab notebook like this.</p> <p>22 BY MR. HEGARTY:</p> <p>23 Q. Do most of your experiments -- strike that -- do most</p> <p>24 of the notebooks of your experiments have whiteout in</p> <p>25 them?</p>

29 (Pages 110 to 113)

Ghassan Saed, Ph.D.

Page 114	Page 116
<p>1 A. Oh, that's what you're saying?</p> <p>2 Q. Yes.</p> <p>3 A. No.</p> <p>4 Q. Have you ever seen one of your other notebooks for your</p> <p>5 lab experiments have whiteout in them and handwriting</p> <p>6 over that whiteout?</p> <p>7 A. It's not a general practice. The answer is I don't</p> <p>8 remember.</p> <p>9 Q. Does your lab have standard operating procedures for</p> <p>10 how a lab notebook is to be prepared?</p> <p>11 MS. O'DELL: Objection to the form.</p> <p>12 THE WITNESS: So from who? From our own lab?</p> <p>13 BY MR. HEGARTY:</p> <p>14 Q. Correct.</p> <p>15 A. So this is the procedure that we follow for our lab.</p> <p>16 Q. Do you have any written standards on how you are to</p> <p>17 prepare a lab notebook?</p> <p>18 A. No.</p> <p>19 Q. Do you instruct those within your lab on how to prepare</p> <p>20 a lab notebook based on any published methods for</p> <p>21 preparing a lab notebook?</p> <p>22 A. So most of our work nowadays -- in the past we used to</p> <p>23 do a lot of lab notebooks, but most of the work that we</p> <p>24 do right now, most of it is electronically, and just to</p> <p>25 keep a record in case something happened to electronic</p>	<p>1 the laboratory notebooks we've been looking at today on</p> <p>2 how to prepare lab notebooks, correct?</p> <p>3 A. I instruct the lady who did this, yes, how to prepare</p> <p>4 lab notebook.</p> <p>5 Q. Did you ever instruct her about what to do in the case</p> <p>6 of needing to correct information that has been written</p> <p>7 in the lab notebook?</p> <p>8 A. Yes, she actually knows that because on, I already</p> <p>9 instruct her not to do the whiteout, she did it</p> <p>10 anyways, but her defense was, oh, I am only doing it on</p> <p>11 words that we already -- on procedures that is not even</p> <p>12 supposed to be there, it's like a normal practice</p> <p>13 procedure that we have done many times.</p> <p>14 Q. Doctor, if you would turn over to Bates Stamp 25 in</p> <p>15 Exhibit Number 1, which is Page 53 in the notebook.</p> <p>16 A. ELISA.</p> <p>17 Q. Under the -- in the section on the upper part of the</p> <p>18 page there appears to be documentation of adding talc</p> <p>19 to the cells; is that correct?</p> <p>20 A. Where do you see that? Cells were seeded, density --</p> <p>21 Q. Can I look at it, Doctor?</p> <p>22 A. Treat with --</p> <p>23 Q. This part of the notebook, what is described where</p> <p>24 you're talking about X1 X2 X3?</p> <p>25 A. Okay. These are the dilution of talc that we used, 5</p>
Page 115	Page 117
<p>1 version, we print it and paste it in the lab notebook.</p> <p>2 So in the past we used to take more precautions for lab</p> <p>3 notebooks, but these days because of this electronic</p> <p>4 facilities and help, we just print it and paste it</p> <p>5 there.</p> <p>6 Q. Did you instruct those who prepared the lab notebooks</p> <p>7 that we've been looking at here today on how to prepare</p> <p>8 laboratory notebooks? Did that instruction come from</p> <p>9 you?</p> <p>10 A. Yes.</p> <p>11 Q. Was that instruction based on any published standards</p> <p>12 in the literature for how to prepare a lab notebook?</p> <p>13 A. That was based on what I've been told since 1983.</p> <p>14 Q. Where were you taught that in 1983?</p> <p>15 A. I did my Ph.D. in molecular biology.</p> <p>16 Q. Where was that?</p> <p>17 A. Where?</p> <p>18 Q. Yes.</p> <p>19 A. England.</p> <p>20 Q. What school in England?</p> <p>21 A. University of Essex.</p> <p>22 Q. You learned at the University of Essex on how to</p> <p>23 prepare a laboratory notebook?</p> <p>24 A. Sure.</p> <p>25 Q. You used that training to instruct those who prepared</p>	<p>1 micrograms, 20 micrograms, and 100 micrograms. These</p> <p>2 are the three doses that we used, and this is how we</p> <p>3 got them.</p> <p>4 Q. With these doses are you adding DMSO?</p> <p>5 A. The talc was dissolved in DMSO.</p> <p>6 Q. Does the lab notebook show how much DMSO was used for</p> <p>7 each sample?</p> <p>8 A. How much DMSO? Yeah.</p> <p>9 Q. Yes. Where is that?</p> <p>10 A. Let me see. So you -- where is it -- it's</p> <p>11 50 milligrams per ml, so one ml, that's the initial</p> <p>12 concentration, 50 milligrams of the talc with one ml of</p> <p>13 the DMSO.</p> <p>14 Q. Did the amount of DMSO increase with the increasing</p> <p>15 doses of talc?</p> <p>16 A. No, no, no, no, okay, let me explain this.</p> <p>17 MS. O'DELL: What page were you referring to,</p> <p>18 Doctor?</p> <p>19 BY MR. HEGARTY:</p> <p>20 Q. Thank you.</p> <p>21 A. The first page.</p> <p>22 Q. What's that page number?</p> <p>23 A. 1.</p> <p>24 Q. Page 1, okay.</p> <p>25 A. So let me explain this. So we prepare a stock solution</p>

30 (Pages 114 to 117)

Ghassan Saed, Ph.D.

Page 118	Page 120
<p>1 of the talc powder plus DMSO, the solvent, which is</p> <p>2 50 milligrams per ml, you can upscale it, downscale it,</p> <p>3 from there we dilute, as you can see here, it says the</p> <p>4 exact delusions, and it says X1 times 10 to the 4th</p> <p>5 microgram per ml, that's what you want to get, and</p> <p>6 that's 15 ml times 5 micrograms per ml, that's the</p> <p>7 concentration desired, and then you take -- this will</p> <p>8 tell you how much volume you add to the cells. So we</p> <p>9 added 2.35 microliters that correspond to 5 micrograms</p> <p>10 per ml, 10 microliters corresponded to 20, and so on,</p> <p>11 50 corresponded to that, and then the untreated cells</p> <p>12 got that DMSO alone.</p> <p>13 MS. O'DELL: What page --</p> <p>14 BY MR. HEGARTY:</p> <p>15 Q. The DMSO at 2.5, 10, and 50?</p> <p>16 A. DMSO.</p> <p>17 Q. DMSO at 2.5, 10, and 50?</p> <p>18 MS. O'DELL: Excuse me, what page are you</p> <p>19 referring to?</p> <p>20 THE WITNESS: This Page 53 right here.</p> <p>21 No, so the DMSO has no concentration. The</p> <p>22 DMSO is the solvent where you dilute, dissolve the</p> <p>23 talc.</p> <p>24 BY MR. HEGARTY:</p> <p>25 Q. My question is -- was, though, with regard to the</p>	<p>1 Does the assay work by you measuring the amount of</p> <p>2 color change?</p> <p>3 MS. O'DELL: Object to the form.</p> <p>4 THE WITNESS: The answer -- I just answered</p> <p>5 you.</p> <p>6 BY MR. HEGARTY:</p> <p>7 Q. Which is?</p> <p>8 A. Are you referring to --</p> <p>9 Q. Well, explain how it works with regard to color.</p> <p>10 A. Okay, oh, I would love to, I'll be very happy to do</p> <p>11 that. Okay, so this is measuring the optical density</p> <p>12 of the concentration of the protein that is correlated</p> <p>13 to the -- how much protein is there. You measure the</p> <p>14 optical density absorbance at 5, 62 nanometer, and you</p> <p>15 construct a standard curve from BSA, and the standard</p> <p>16 curve is known concentration, and it tells you when</p> <p>17 it -- where is the absorption and what's the slope of</p> <p>18 the line, and that helps you extrapolate the unknown</p> <p>19 samples from your standard curve.</p> <p>20 Q. So is --</p> <p>21 A. It is a colorimetric assay.</p> <p>22 Q. It's measuring a color change, correct?</p> <p>23 A. No.</p> <p>24 Q. When you say colorimetric assay, what do you mean?</p> <p>25 A. It's extension coefficient, it measures BSA at specific</p>
Page 119	Page 121
<p>1 controls --</p> <p>2 A. Volumes, you use volumes.</p> <p>3 Q. -- did you, for each level of talc applied to the</p> <p>4 cells, for the corresponding controls did you also</p> <p>5 apply DMSO?</p> <p>6 A. Yes.</p> <p>7 Q. At what volume?</p> <p>8 A. It's 2.5, 10, and 50.</p> <p>9 Q. Of DMSO alone?</p> <p>10 A. Correct.</p> <p>11 Q. If you turn over to Page 55, I'm sorry, 53 in the lab</p> <p>12 notebook, which is Bates Stamped 27 in the copy</p> <p>13 version, Page 53.</p> <p>14 A. This one? Same page?</p> <p>15 Q. 55, Page 55 of the lab notebook, which is Bates Stamped</p> <p>16 27.</p> <p>17 A. Okay.</p> <p>18 Q. Is this -- does this page describe the BCA protein</p> <p>19 detection assay?</p> <p>20 A. Correct.</p> <p>21 Q. And does the assay work by measuring the amount of</p> <p>22 color change, that is, the more color change you</p> <p>23 detect, the greater the response it indicates?</p> <p>24 A. Are you saying it's a colorimetric assay?</p> <p>25 Q. Well, I'm not sure. I can ask it in a different way.</p>	<p>1 wavelength.</p> <p>2 Q. And what did you do to validate that the assay would</p> <p>3 work with the presence of talc?</p> <p>4 A. What assay?</p> <p>5 Q. This assay.</p> <p>6 A. This assay is not for talc, this assay is a standard</p> <p>7 curve to measure -- to use a standard for -- so we can</p> <p>8 apply the same amount of protein for each sample.</p> <p>9 Q. But you are using -- you are measuring the samples</p> <p>10 after they've been -- after talc has been applied,</p> <p>11 correct?</p> <p>12 A. We are measuring each like, for example, okay --</p> <p>13 MS. O'DELL: Refer to a specific page.</p> <p>14 THE WITNESS: Let's say, for example,</p> <p>15 catalase, so we are measuring catalase, but to measure</p> <p>16 catalase, you need to compare between samples, right?</p> <p>17 You need to compare between treated versus untreated.</p> <p>18 How are you -- how can you determine that you have the</p> <p>19 same amount of protein? What if you have more protein</p> <p>20 here than here? The results is not accurate. So we</p> <p>21 use BSA as a standard to measure and standardize all</p> <p>22 the samples to the same amount of protein, so the</p> <p>23 comparison would be -- the comparison would be</p> <p>24 accurate.</p> <p>25</p>

31 (Pages 118 to 121)

Ghassan Saed, Ph.D.

Page 122	Page 124
<p>1 BY MR. HEGARTY:</p> <p>2 Q. How did you rule out the possibility that the color</p> <p>3 change or the wavelength change was due to the talc</p> <p>4 particles themselves as opposed to any effect they were</p> <p>5 having?</p> <p>6 MS. O'DELL: Object to the form.</p> <p>7 THE WITNESS: Yeah, so we use the same cell</p> <p>8 line, we split the cells, we grow the cells, some cells</p> <p>9 get the talcum powder, the same cells, the other</p> <p>10 aliquot get no talcum powder, we extract proteins, we</p> <p>11 correct for the differences in the extraction of</p> <p>12 proteins, and then we run catalase, for example.</p> <p>13 BY MR. HEGARTY:</p> <p>14 Q. Within the proteins extracted, would there still be</p> <p>15 talc particles?</p> <p>16 A. No, no.</p> <p>17 Q. How do you know there are not talc particles?</p> <p>18 A. Because these are total proteins. You extract</p> <p>19 proteins. There is a process of extraction of</p> <p>20 proteins. You wash off all the media, you precipitate</p> <p>21 the cells, you lyse the cells, you extract proteins.</p> <p>22 Q. How many times did you repeat the experiment you just</p> <p>23 described for catalase?</p> <p>24 A. So all this work from January 24th till the end of this</p> <p>25 work, it's done in triplicate.</p>	<p>1 A. I am not measuring the protein, I'm measuring catalase.</p> <p>2 Q. You're measuring the catalase.</p> <p>3 A. Catalase and control cells versus treated cells, okay,</p> <p>4 in triplicates.</p> <p>5 Q. So you measure it once using the same sample, you</p> <p>6 measure the same sample two more times?</p> <p>7 A. Okay, oh, now I understand your question, okay. So</p> <p>8 this triplicate is for the assay, so we did one, two,</p> <p>9 three, four, five, six cell lines in triplicate each</p> <p>10 time point.</p> <p>11 Q. When you say in triplicate, does that mean you have</p> <p>12 three sets of petri dishes or are you doing one set of</p> <p>13 petri dishes and you're doing the test three times?</p> <p>14 MS. O'DELL: Objection.</p> <p>15 THE WITNESS: So it is -- this one here is</p> <p>16 one set of petri dish, and it's done in triplicate for</p> <p>17 each time point.</p> <p>18 BY MR. HEGARTY:</p> <p>19 Q. So you didn't -- for each cell line you didn't have</p> <p>20 three --</p> <p>21 A. Independent.</p> <p>22 Q. -- independent cultures and then test each independent</p> <p>23 culture against the others. You had one independent</p> <p>24 culture you tested three times?</p> <p>25 MS. O'DELL: Object to the form.</p>
Page 123	Page 125
<p>1 Q. What does being done in triplicate mean?</p> <p>2 A. Every experiment is done in triplicate.</p> <p>3 Q. Explain that to me.</p> <p>4 A. Okay. So, for example, if you look at, see how --</p> <p>5 Q. What are you looking at?</p> <p>6 A. For example, 56, if you look at 56, look at the table.</p> <p>7 MS. O'DELL: Give us just a minute to get</p> <p>8 there.</p> <p>9 Q. Okay, go ahead.</p> <p>10 A. You have the table?</p> <p>11 Q. Yes.</p> <p>12 A. Okay. If you look at the table it says -- this</p> <p>13 particular ovarian cancer cell line, TOV-112-C, you</p> <p>14 have C, you have 5 microgram, you have 20 micrograms,</p> <p>15 and you have 100 microgram, you see them? And you can</p> <p>16 see OD1, OD2, OD3, blank, blank, blank, so triplicate,</p> <p>17 three times. The blank three times, the experiment</p> <p>18 three times, and subtract from the blank and do the</p> <p>19 calculation.</p> <p>20 Q. You're measuring the same protein extracted three</p> <p>21 times?</p> <p>22 MS. O'DELL: Object to the form.</p> <p>23 BY MR. HEGARTY:</p> <p>24 Q. Is that correct?</p> <p>25</p>	<p>1 BY MR. HEGARTY:</p> <p>2 Q. Is that correct?</p> <p>3 MS. O'DELL: If you need to read his</p> <p>4 question, it was confusing.</p> <p>5 THE WITNESS: Independent cultures, what does</p> <p>6 that mean?</p> <p>7 BY MR. HEGARTY:</p> <p>8 Q. Well, I tried to use your word.</p> <p>9 A. I know.</p> <p>10 Q. Did you have for each cell line three separate petri</p> <p>11 dishes, three petri dishes, so you ran the experiment</p> <p>12 essentially three times for each cell line or did you</p> <p>13 have one petri dish with a cell line in it, extract the</p> <p>14 catalase, and run that extraction three times?</p> <p>15 A. No, no, no. How can you -- okay, I'm confused now.</p> <p>16 Okay, so how can you have one petri dish and you</p> <p>17 extract three time points of treatment?</p> <p>18 Q. I'm not asking you --</p> <p>19 A. So we have three, we have three, we have actually four,</p> <p>20 one, two, three, four, four independent culture dishes</p> <p>21 for each treatment.</p> <p>22 Q. Correct.</p> <p>23 A. That is done in triplicate.</p> <p>24 Q. And what you say in triplicate, that means you're</p> <p>25 taking the extraction and you're testing it three</p>

Ghassan Saed, Ph.D.

Page 126	Page 128
<p>1 times, the same extraction.</p> <p>2 A. For each time point.</p> <p>3 Q. For each time point.</p> <p>4 A. Yes.</p> <p>5 Q. You don't have petri dishes that have the same cells in</p> <p>6 it for three separate petri dishes, then doing the</p> <p>7 extractions for each of those three petri dishes, do</p> <p>8 you follow my question?</p> <p>9 A. Yeah, I follow the question.</p> <p>10 MS. O'DELL: Objection.</p> <p>11 THE WITNESS: You cannot do that because then</p> <p>12 you have to do triplicate of triplicate.</p> <p>13 BY MR. HEGARTY:</p> <p>14 Q. Exactly.</p> <p>15 A. Have I done that?</p> <p>16 Q. Yes.</p> <p>17 A. No.</p> <p>18 Q. Okay. That was my question.</p> <p>19 A. Not for this assay.</p> <p>20 Q. Have you ever done assays like that where you've had --</p> <p>21 A. Yes.</p> <p>22 Q. -- multiple?</p> <p>23 MS. O'DELL: Let him finish.</p> <p>24 BY MR. HEGARTY:</p> <p>25 Q. Have you done assays like that where you've used the</p>	<p>1 MS. O'DELL: So you wanted 26 of the Bates,</p> <p>2 and that's at the bottom left corner 54.</p> <p>3 THE WITNESS: This?</p> <p>4 BY MR. HEGARTY:</p> <p>5 Q. Yes. Your sample ID for -- your sample IDs run from</p> <p>6 356 to 386, is that right?</p> <p>7 A. So let me understand your question. Are these numbers</p> <p>8 in serial number?</p> <p>9 Q. Are these the sample ID numbers of your tests?</p> <p>10 A. Okay, so the sample ID correspond to each specimen,</p> <p>11 yes, each cells.</p> <p>12 Q. And those sample IDs run in chronologic order from 356</p> <p>13 to 386?</p> <p>14 A. No, they're missing. For example, there is 60 -- where</p> <p>15 is it -- actually, 84, 85, yes, they are.</p> <p>16 Q. So you're right, they jump from 371 to 379, do you see</p> <p>17 that?</p> <p>18 A. Yeah.</p> <p>19 Q. Why is that?</p> <p>20 A. Because, you see, these are already, these cells were</p> <p>21 treated in different times, so that's why they get</p> <p>22 different IDs.</p> <p>23 Q. Okay.</p> <p>24 A. This is a lot of work. You can't do it in one time.</p> <p>25 Q. What type of test is -- or strike that. Then if you</p>
Page 127	Page 129
<p>1 same cell line in three different dishes and done the</p> <p>2 triplicate, triplicate, triplicate off of each dish?</p> <p>3 MS. O'DELL: Object to the form.</p> <p>4 THE WITNESS: Okay, so in the past I have</p> <p>5 done -- this is a very important question, it is always</p> <p>6 raised when we submit our data to be considered for</p> <p>7 publication, they will say did you do a real triplicate</p> <p>8 or a triplicate of the assay. So the answer is we have</p> <p>9 done that in the past, and in our system here there is</p> <p>10 no difference between -- because catalase have been</p> <p>11 done in our lab, we published with it, it is a standard</p> <p>12 protocol in our lab, and we never have -- we test it</p> <p>13 for intra-assay variation triplicates, and that was not</p> <p>14 the case. Did we test that? Yes, we did, but not for</p> <p>15 talc treatment per se, because these are established</p> <p>16 protocols in our lab, we already know and we learn from</p> <p>17 them, so you don't really need to do a triplicate of a</p> <p>18 triplicate of a triplicate.</p> <p>19 BY MR. HEGARTY:</p> <p>20 Q. Thank you. On Page 26 of the Bates Stamp document</p> <p>21 Number 1, which is after --</p> <p>22 MS. O'DELL: 54 of the lab.</p> <p>23 MR. HEGARTY: Is it 54 of the lab notebook?</p> <p>24 Because I can't -- my page doesn't have a handwritten</p> <p>25 number.</p>	<p>1 turn over to Page 69 of Exhibit Number 1, which, again,</p> <p>2 my copy doesn't have a handwritten page number on it.</p> <p>3 MR. LAPINSKI: Counsel, just to confirm, when</p> <p>4 you refer to page numbers, you're referring to the</p> <p>5 Bates Numbers, correct?</p> <p>6 MR. HEGARTY: In this case I'm referring to</p> <p>7 Page 69 in Exhibit Number 1, which is the Bates Number.</p> <p>8 MS. O'DELL: Well, and to be -- I think in</p> <p>9 the lower right-hand corner of your page that's 94, and</p> <p>10 that's what was produced so --</p> <p>11 MR. HEGARTY: If you go to Page 94, then,</p> <p>12 Doctor.</p> <p>13 BY MR. HEGARTY:</p> <p>14 Q. It should be this.</p> <p>15 A. Yes.</p> <p>16 Q. Are those the same sample numbers that we looked at in</p> <p>17 the prior -- on the prior page?</p> <p>18 A. What page was it? Sorry.</p> <p>19 Q. That was Page 54.</p> <p>20 A. Yes.</p> <p>21 Q. Do those refer to the same samples?</p> <p>22 A. Yes.</p> <p>23 Q. If you turn next, then, to page Bates Number 76 Exhibit</p> <p>24 Number 1, Page 100 in the laboratory notebook, there</p> <p>25 are -- do you see what I'm referring you to, Doctor,</p>

Ghassan Saed, Ph.D.

Page 130	Page 132
<p>1 Page 100?</p> <p>2 A. Yes.</p> <p>3 Q. There are again sample numbers listed there. Are those</p> <p>4 for a different test?</p> <p>5 A. This is for different test, this is Caspase-3 activity.</p> <p>6 Q. Are you using the same sample numbers as in the</p> <p>7 previous test?</p> <p>8 A. It should indicate here, so 368, 369, 370, so the</p> <p>9 answer is yes, some of them, the numbers that</p> <p>10 correspond they are -- let me see, hold on, let me just</p> <p>11 make sure. So this is for ELISA, we did the normal --</p> <p>12 so the answer is yes.</p> <p>13 Q. If you're using the same numbers for different tests,</p> <p>14 how are you able to keep those straight?</p> <p>15 MS. O'DELL: Objection, form.</p> <p>16 THE WITNESS: Okay. So let me explain this.</p> <p>17 So here, this is the sample ID, the treated cells.</p> <p>18 BY MR. HEGARTY:</p> <p>19 Q. That's on Page --</p> <p>20 A. 54.</p> <p>21 Q. Okay.</p> <p>22 A. So this is the sample ID, and this is what are they,</p> <p>23 what each cell line definition. Now, this was</p> <p>24 subjected to isolation of protein, okay, and we use</p> <p>25 BSA, as we discussed, as a standard, then you isolate</p>	<p>1 SAED DEPOSITION EXHIBIT NUMBER 11,</p> <p>2 NOTEBOOKS,</p> <p>3 WAS MARKED BY THE REPORTER</p> <p>4 FOR IDENTIFICATION</p> <p>5 BY MR. HEGARTY:</p> <p>6 Q. So Exhibit Number 11 is the notebook you brought with</p> <p>7 you to the deposition here today?</p> <p>8 A. This, yes.</p> <p>9 MS. O'DELL: There are actually two parts.</p> <p>10 BY MR. HEGARTY:</p> <p>11 Q. There are two parts. Where is the other part?</p> <p>12 MS. O'DELL: It's right here.</p> <p>13 BY MR. HEGARTY:</p> <p>14 Q. Both parts of the notebook contain what?</p> <p>15 A. So references 86 continued 89.</p> <p>16 Q. Did you compile Exhibit Number 11? Did you put that</p> <p>17 together?</p> <p>18 A. Number 11 we're talking about? Sorry.</p> <p>19 Q. Number 11 are both notebooks.</p> <p>20 A. Yes.</p> <p>21 Q. Did you choose the articles to put in Exhibit</p> <p>22 Number 11?</p> <p>23 A. My references from the articles, yes.</p> <p>24 MS. O'DELL: Just I think there's some lack</p> <p>25 of clarity. You chose the articles. Did you copy the</p>
Page 131	Page 133
<p>1 the total protein from it, now you can do what we did,</p> <p>2 we can do catalase, we can do SOD, we can do different</p> <p>3 markers from total proteins. Caspase-3 is included.</p> <p>4 Q. Got you, okay thank you. I'm probably going into a</p> <p>5 different section that's going to take a while if you</p> <p>6 want to take a break now or keep going.</p> <p>7 MS. O'DELL: It's 12:15, Doctor, would you</p> <p>8 like a short break for lunch or what's your preference?</p> <p>9 THE WITNESS: Yes.</p> <p>10 MR. HEGARTY: Let's go off the record.</p> <p>11 THE VIDEOGRAPHER: Going off the record at</p> <p>12 12:16 p.m.</p> <p>13 (A recess was taken.)</p> <p>14 THE VIDEOGRAPHER: We are back on the record</p> <p>15 at 1:26 p.m.</p> <p>16 BY MR. HEGARTY:</p> <p>17 Q. Doctor, you brought with you a notebook that appears to</p> <p>18 contain articles and perhaps a number of other</p> <p>19 documents. What is in the notebook that you have in</p> <p>20 front of you?</p> <p>21 A. So I have my report that I submitted, my CV, and my</p> <p>22 references.</p> <p>23 Q. I'll mark that notebook as Exhibit Number 11.</p> <p>24</p> <p>25</p>	<p>1 pages?</p> <p>2 THE WITNESS: No.</p> <p>3 BY MR. HEGARTY:</p> <p>4 Q. Did you put the notebooks together yourself?</p> <p>5 A. No.</p> <p>6 Q. Do you know who put the notebooks together?</p> <p>7 MS. O'DELL: Objection, it's a little vague.</p> <p>8 THE WITNESS: You guys did it.</p> <p>9 BY MR. HEGARTY:</p> <p>10 Q. Counsel for Plaintiffs put the notebooks together?</p> <p>11 A. What do you call them, sorry?</p> <p>12 Q. Counsel for Plaintiffs put the notebooks --</p> <p>13 A. Yes, sorry, I'm just having -- I thought that I put the</p> <p>14 references together, yes.</p> <p>15 Q. I want to talk in more detail about Exhibit Number 7.</p> <p>16 That's your manuscript.</p> <p>17 A. Okay.</p> <p>18 Q. When did the writing process begin for Exhibit 7? And</p> <p>19 this goes back to the original version that you</p> <p>20 submitted to --</p> <p>21 A. Yes.</p> <p>22 Q. -- OB-GYN Oncology.</p> <p>23 A. September I think.</p> <p>24 Q. Do you know approximately when in September?</p> <p>25 A. I can't remember.</p>

34 (Pages 130 to 133)

Ghassan Saed, Ph.D.

Page 134	Page 136
<p>1 Q. Dr. Fletcher is identified as the lead author. How did</p> <p>2 that come about?</p> <p>3 A. She is not the lead author.</p> <p>4 Q. Who is the lead author?</p> <p>5 A. I am.</p> <p>6 Q. The reason I thought she was lead author is on the</p> <p>7 second page of Exhibit Number 7 after the title she's</p> <p>8 the first author listed.</p> <p>9 A. That's -- lead author is the corresponding author,</p> <p>10 that's me.</p> <p>11 Q. What was the involvement of -- strike that. What was</p> <p>12 Dr. Fletcher's involvement in the preparation of this</p> <p>13 article?</p> <p>14 A. So for the articles, she helped in doing the -- on this</p> <p>15 article or experiments, the whole thing, or just this</p> <p>16 article?</p> <p>17 Q. Just on the article.</p> <p>18 A. Okay, so her role was basically reading after me make</p> <p>19 sure that the methods are what we really used, typos</p> <p>20 and like help read proofing.</p> <p>21 Q. What was Dr. Harper's involvement in preparation of the</p> <p>22 manuscript?</p> <p>23 A. Analysis of data, interpretation of data, she's a</p> <p>24 clinical OB-GYN oncologist.</p> <p>25 Q. What was Dr. -- or, I'm sorry, what was Ira Memaj?</p>	<p>1 article besides those we talked about?</p> <p>2 A. No, so she -- that's why she's in the acknowledgment,</p> <p>3 not in the authorship, because she was repeating</p> <p>4 experiments.</p> <p>5 Q. In connection with the experiments that you conducted</p> <p>6 that went into preparing or that led to preparing of</p> <p>7 this manuscript, did you prepare a proposal to request</p> <p>8 funding of the experiments in the article?</p> <p>9 MS. O'DELL: Object to the form.</p> <p>10 THE WITNESS: I created a budget so to see</p> <p>11 how much this will cost me.</p> <p>12 BY MR. HEGARTY:</p> <p>13 Q. When you seek funding from NIH, for example, or another</p> <p>14 organization, you have to prepare a formal grant</p> <p>15 request where you set out and provide certain</p> <p>16 information describing what you intend to do and how</p> <p>17 much it's going to cost, correct?</p> <p>18 A. For NIH?</p> <p>19 Q. Yes.</p> <p>20 A. Yes.</p> <p>21 Q. Did you prepare any kind of grant request in connection</p> <p>22 with the experiments that went into preparing this</p> <p>23 manuscript?</p> <p>24 MS. O'DELL: Object to the form, other than</p> <p>25 he's testified to.</p>
Page 135	Page 137
<p>1 A. Ira Memaj was a medical student that helped also in</p> <p>2 looking for the grammar and proofreading mostly.</p> <p>3 Q. What was Rong Fan's involvement?</p> <p>4 A. Same thing. Now, the authors that are here, not</p> <p>5 necessarily because they participated in writing the</p> <p>6 manuscript, but they own the authorship because they</p> <p>7 participated in the work that created the manuscript.</p> <p>8 Q. What was Robert Morris's -- Dr. Robert Morris's --</p> <p>9 A. Dr. Morris is the OB-GYN Oncology chief, and he helped</p> <p>10 in also editing the manuscript and help interpretation</p> <p>11 of data clinically.</p> <p>12 Q. Who prepared the original manuscript? Who was the</p> <p>13 author?</p> <p>14 A. I did.</p> <p>15 Q. Did anyone help you write the original manuscript?</p> <p>16 A. No.</p> <p>17 Q. Did anyone in any way contribute to the manuscript</p> <p>18 besides those individuals listed in Exhibit Number 7?</p> <p>19 A. No.</p> <p>20 Q. Over on Page 12 in the Acknowledgments section there's</p> <p>21 a notation thanking Imaan Singh.</p> <p>22 A. Yes, she was a medical student.</p> <p>23 Q. What did Imaan Singh do?</p> <p>24 A. She helped in running some experiments for us.</p> <p>25 Q. Anyone else assist in any way in the preparation of the</p>	<p>1 THE WITNESS: The answer is no.</p> <p>2 BY MR. HEGARTY:</p> <p>3 Q. Did you submit the budget you created to anybody?</p> <p>4 A. Official funding agencies, no.</p> <p>5 Q. Did you provide the budget to Counsel for Plaintiffs,</p> <p>6 Beasley Allen?</p> <p>7 A. I can't remember.</p> <p>8 Q. Do you still have a copy of the budget?</p> <p>9 A. I do.</p> <p>10 Q. Did you prepare any type of protocol or outline in</p> <p>11 advance of the experiments describing the methods or</p> <p>12 goals of the experiments?</p> <p>13 A. In writing?</p> <p>14 Q. In writing.</p> <p>15 A. I don't remember.</p> <p>16 Q. Is that something that's commonly done -- or strike</p> <p>17 that. Is that something you commonly do in your work</p> <p>18 in connection with doing studies that then go into a</p> <p>19 journal article?</p> <p>20 MS. O'DELL: Object to the form.</p> <p>21 THE WITNESS: So the way I do this, this</p> <p>22 is -- again, this is routinely done in our lab, and we</p> <p>23 ran a pilot experiment using PCR, using single dose,</p> <p>24 and when we saw the data and we saw that there's a</p> <p>25 biological effect, then we had a plan of what to do,</p>

35 (Pages 134 to 137)

Ghassan Saed, Ph.D.

<p style="text-align: right;">Page 138</p> <p>1 and which is the whole study.</p> <p>2 BY MR. HEGARTY:</p> <p>3 Q. Do you prepare that plan in writing?</p> <p>4 A. In writing?</p> <p>5 Q. Yes.</p> <p>6 A. I really don't need to because it's the technology</p> <p>7 again, it is all applied in our laboratory, and we are</p> <p>8 testing the markers that we been extensively publishing</p> <p>9 on and testing through our lab.</p> <p>10 Q. For any articles that you have published in scientific</p> <p>11 journals, have you ever prepared an outline or protocol</p> <p>12 describing what you're going to do before you actually</p> <p>13 do the experiments?</p> <p>14 MS. O'DELL: Object to the form.</p> <p>15 THE WITNESS: Yeah, so, again, I'm just</p> <p>16 trying to explain to you that the methodology is in</p> <p>17 place, it's in the lab, it's been published, it's been</p> <p>18 referenced, and we test the same markers over and over,</p> <p>19 so there is no need to every time write this down.</p> <p>20 BY MR. HEGARTY:</p> <p>21 Q. But have you ever prepared in connection with a journal</p> <p>22 article you're going to hopefully write after doing</p> <p>23 experiments an outline or an overview or a summary of</p> <p>24 what you're going to do before you then go on and do</p> <p>25 it?</p>	<p style="text-align: right;">Page 140</p> <p>1 BY MR. HEGARTY:</p> <p>2 Q. So tell me again what meetings this --</p> <p>3 A. SRI.</p> <p>4 Q. -- testing was presented.</p> <p>5 A. SRI March 2018, and then if I recall correctly, ASRM</p> <p>6 October --</p> <p>7 MS. O'DELL: ASRM, is that what you're</p> <p>8 saying?</p> <p>9 THE WITNESS: No, it wasn't ASRM. I forgot</p> <p>10 which the other one -- SGO, SGO, I forgot where I</p> <p>11 submitted, sorry, but I did submit two abstracts and I</p> <p>12 presented them in national meetings, SRI for sure was</p> <p>13 March -- I believe it was SGO.</p> <p>14 MS. O'DELL: For the record, Doctor, what</p> <p>15 does SGO stand for?</p> <p>16 THE WITNESS: Society of Gynecology and</p> <p>17 Oncology.</p> <p>18 BY MR. HEGARTY:</p> <p>19 Q. In March of 2018?</p> <p>20 A. The SRI meeting, yes, that was the preliminary study.</p> <p>21 Q. The lab notebook you provided includes entries for work</p> <p>22 that occurred after March 2018, correct?</p> <p>23 A. Correct.</p> <p>24 Q. What did you then present in March of 2018?</p> <p>25 A. We presented the work that we did preliminary just to</p>
<p style="text-align: right;">Page 139</p> <p>1 A. We write the methodology.</p> <p>2 Q. So you have written methodologies for what you're going</p> <p>3 to do before you actually start the experiments?</p> <p>4 MS. O'DELL: Object to the form, that's not</p> <p>5 what he said.</p> <p>6 THE WITNESS: Not this experiment.</p> <p>7 BY MR. HEGARTY:</p> <p>8 Q. On other occasions you have done that?</p> <p>9 A. Yes.</p> <p>10 Q. On other occasions when you have published articles in</p> <p>11 scientific and medical journals?</p> <p>12 A. Not all the times, no.</p> <p>13 Q. When is it that you do prepare an outline or protocol?</p> <p>14 A. When it is something that is not routinely daily test</p> <p>15 that is performed in our laboratory, something</p> <p>16 different.</p> <p>17 Q. Did you discuss the results of the testing or the</p> <p>18 experiments with anyone outside of the authors on the</p> <p>19 manuscript?</p> <p>20 MS. O'DELL: Objection to form.</p> <p>21 THE WITNESS: Yes, so the answer -- I'm</p> <p>22 sorry, that wasn't the answer. This part of this work</p> <p>23 was accepted and presented at national meetings, was</p> <p>24 presented at SRI, presented at ASRM, and it was open</p> <p>25 for everybody to discuss.</p>	<p style="text-align: right;">Page 141</p> <p>1 show the effect on using just PCR.</p> <p>2 Q. Did you discuss the contents of the manuscript, Exhibit</p> <p>3 Number 7, with anyone besides the authors during the</p> <p>4 time it was being written?</p> <p>5 A. No.</p> <p>6 Q. Did you discuss the contents of the manuscript during</p> <p>7 the time it was being written with attorneys for</p> <p>8 Beasley Allen or any other Plaintiff's Counsel in this</p> <p>9 case?</p> <p>10 MS. O'DELL: Don't discuss -- I'm going to</p> <p>11 instruct you not to answer that question.</p> <p>12 BY MR. HEGARTY:</p> <p>13 Q. Doctor, if you would turn to --</p> <p>14 UNIDENTIFIED ATTORNEY: Excuse me, was that a</p> <p>15 yes or no question? You're instructing him not to</p> <p>16 answer whether he discussed the contents?</p> <p>17 MS. O'DELL: Well, the question presupposes</p> <p>18 the subject matter of the discussion and that's the --</p> <p>19 so I'm going to instruct him not to answer the</p> <p>20 question.</p> <p>21 BY MR. HEGARTY:</p> <p>22 Q. Doctor, would you turn to Page 12 of Exhibit 7, please.</p> <p>23 Did you prepare the Conflict of Interest section on</p> <p>24 Page 12?</p> <p>25 A. Yes.</p>

36 (Pages 138 to 141)

Ghassan Saed, Ph.D.

<p style="text-align: right;">Page 142</p> <p>1 Q. For whom did you act as a consultant for a fee?</p> <p>2 A. Beasley Allen.</p> <p>3 Q. Why didn't you disclose Beasley Allen in this Conflict</p> <p>4 of Interest disclosure?</p> <p>5 A. The name you mean?</p> <p>6 Q. Yes.</p> <p>7 A. Just add the name? I didn't do it.</p> <p>8 Q. At the time you prepared this manuscript, you were</p> <p>9 acting as a consultant for Beasley Allen in litigation</p> <p>10 involving the topic of this paper, correct?</p> <p>11 A. Correct.</p> <p>12 Q. But you didn't identify that in the Conflict of</p> <p>13 Interest disclosure that you were acting as a</p> <p>14 consultant in litigation involving this topic for a</p> <p>15 fee, correct?</p> <p>16 MS. O'DELL: Objection to form.</p> <p>17 THE WITNESS: The journal, this is sufficient</p> <p>18 language for the journal.</p> <p>19 BY MR. HEGARTY:</p> <p>20 Q. But you did not disclose that you were acting as a</p> <p>21 consultant in litigation involving this topic, correct?</p> <p>22 MS. O'DELL: Objection to form.</p> <p>23 THE WITNESS: This is what I disclosed.</p> <p>24 BY MR. HEGARTY:</p> <p>25 Q. At the time you prepared this disclosure, you were</p>	<p style="text-align: right;">Page 144</p> <p>1 A. No reason, I could add this --</p> <p>2 Q. You say in the disclosure that you acted as a</p> <p>3 consultant regarding this topic for a fee. What was</p> <p>4 the fee?</p> <p>5 A. What was the fee?</p> <p>6 Q. Yes.</p> <p>7 A. I think \$600 an hour.</p> <p>8 Q. Was the fee the total amount you gave us for your</p> <p>9 invoices at the beginning of the deposition?</p> <p>10 A. Yes. No?</p> <p>11 MS. O'DELL: Sorry, I was going to object, it</p> <p>12 was a little unclear, but I think you understood his</p> <p>13 question.</p> <p>14 BY MR. HEGARTY:</p> <p>15 Q. Doctor, don't you agree that anyone reading this</p> <p>16 article should know that you are a paid expert for</p> <p>17 lawyers who have a financial interest in this subject</p> <p>18 area?</p> <p>19 MS. O'DELL: Object to the form.</p> <p>20 THE WITNESS: Again, my response would be I</p> <p>21 put the conflict of interest that I'm acting as a</p> <p>22 consultant on this topic.</p> <p>23 BY MR. HEGARTY:</p> <p>24 Q. Don't you think the --</p> <p>25</p>
<p style="text-align: right;">Page 143</p> <p>1 acting as a consultant -- strike that. At the time</p> <p>2 that you prepared this conflict of interest, you were</p> <p>3 acting as a named testifying expert in the</p> <p>4 litigation -- in the talc litigation for plaintiffs</p> <p>5 lawyers, correct?</p> <p>6 A. Is that the same question? Yes.</p> <p>7 Q. So at the time that you prepared this disclosure, you</p> <p>8 were not just a consultant, you were a testifying</p> <p>9 expert witness in litigation, correct?</p> <p>10 MS. O'DELL: Objection to form.</p> <p>11 THE WITNESS: As far as I know, I'm a</p> <p>12 consultant, witness expert to consult in this matter,</p> <p>13 yes.</p> <p>14 BY MR. HEGARTY:</p> <p>15 Q. You did not disclose this relationship in the</p> <p>16 acknowledgment, that is, this relationship that you</p> <p>17 were a designated testifying expert in litigation</p> <p>18 involving talc and ovarian cancer, correct?</p> <p>19 A. The language that I wrote here was sufficient by the</p> <p>20 journal.</p> <p>21 MR. KLATT: Objection, nonresponsive.</p> <p>22 BY MR. HEGARTY:</p> <p>23 Q. Why didn't you disclose in this acknowledgment that you</p> <p>24 were a designated expert on behalf of plaintiffs in</p> <p>25 litigation involving talc and ovarian cancer?</p>	<p style="text-align: right;">Page 145</p> <p>1 A. -- for a fee.</p> <p>2 Q. Don't you think the potential readers of this article</p> <p>3 are entitled to know that you are using this article to</p> <p>4 profit on this topic?</p> <p>5 MS. O'DELL: Objection to form.</p> <p>6 THE WITNESS: This is the language that is</p> <p>7 requested by the journal.</p> <p>8 BY MR. HEGARTY:</p> <p>9 Q. Don't you think that anyone reading this article would</p> <p>10 want to know that you have a financial interest in this</p> <p>11 topic?</p> <p>12 A. It says clearly fee, for a fee.</p> <p>13 Q. You don't identify, though, the area of this topic in</p> <p>14 which you're consulting, correct?</p> <p>15 MS. O'DELL: Objection to form.</p> <p>16 THE WITNESS: So for the reader of this, our</p> <p>17 readers, it's enough to say I'm a consultant for a fee</p> <p>18 on this topic.</p> <p>19 BY MR. HEGARTY:</p> <p>20 Q. You are getting paid in this litigation to testify on</p> <p>21 behalf of plaintiffs, correct?</p> <p>22 A. Yes.</p> <p>23 Q. Your testimony is supported by the manuscript, by</p> <p>24 Exhibit Number 7, correct?</p> <p>25 MS. O'DELL: Objection to form.</p>

37 (Pages 142 to 145)

Ghassan Saed, Ph.D.

<p style="text-align: right;">Page 146</p> <p>1 THE WITNESS: It's -- part of it is in the</p> <p>2 manuscript and part of it is not.</p> <p>3 BY MR. HEGARTY:</p> <p>4 Q. You stand to benefit financially to the extent</p> <p>5 Plaintiff's Counsel use your article successfully in</p> <p>6 this litigation, correct?</p> <p>7 MS. O'DELL: Object to the form.</p> <p>8 THE WITNESS: I didn't understand the</p> <p>9 question.</p> <p>10 BY MR. HEGARTY:</p> <p>11 Q. You stand to benefit financially to the extent that</p> <p>12 Plaintiff's Counsel use your article in this</p> <p>13 litigation, correct?</p> <p>14 MS. O'DELL: Object to the form.</p> <p>15 THE WITNESS: Can you -- I know but I don't</p> <p>16 understand what you really want to say.</p> <p>17 BY MR. HEGARTY:</p> <p>18 Q. You stand to benefit financially, make more money by</p> <p>19 Plaintiff's Counsel using your article in this</p> <p>20 litigation, correct?</p> <p>21 MS. O'DELL: Object to the form.</p> <p>22 THE WITNESS: No, I'm not aware, how they</p> <p>23 going to make more money by using this?</p> <p>24 BY MR. HEGARTY:</p> <p>25 Q. Well, they will continue to use you as an expert</p>	<p style="text-align: right;">Page 148</p> <p>1 BY MR. HEGARTY:</p> <p>2 Q. The rest of the conflict of interest disclosure says</p> <p>3 that no other -- the authors declare -- the other</p> <p>4 authors declare there are no conflicts of interest; do</p> <p>5 you see that?</p> <p>6 A. I do.</p> <p>7 Q. So did any of the other authors consult on this topic</p> <p>8 for a fee, to your knowledge?</p> <p>9 A. To my knowledge, no.</p> <p>10 Q. Were the other authors on this manuscript aware of your</p> <p>11 relationship with the attorneys for Beasley Allen in</p> <p>12 this litigation?</p> <p>13 A. Yes, they are.</p> <p>14 Q. How were they made aware of it?</p> <p>15 A. I made them aware of it.</p> <p>16 Q. When did you make them aware of it?</p> <p>17 A. When we started this whole thing.</p> <p>18 Q. What did you tell them?</p> <p>19 A. I tell them I'm acting as a -- what do you call it -- a</p> <p>20 witness expert in this litigation.</p> <p>21 Q. Did you -- have you told them that you've been</p> <p>22 designated to testify as an expert witness in this</p> <p>23 litigation?</p> <p>24 MS. O'DELL: Objection, asked and answered.</p> <p>25 THE WITNESS: I just said -- shared with them</p>
<p style="text-align: right;">Page 147</p> <p>1 witness in all the cases to the extent they are</p> <p>2 successful in using your article, correct?</p> <p>3 MS. O'DELL: Object to the form.</p> <p>4 THE WITNESS: So they can use whatever they</p> <p>5 want. This is my research and my lab. These are the</p> <p>6 results that I stand for.</p> <p>7 BY MR. HEGARTY:</p> <p>8 Q. Do you think they would pay you to testify in this</p> <p>9 litigation if your results were different in your</p> <p>10 article?</p> <p>11 MS. O'DELL: Object to the form.</p> <p>12 THE WITNESS: This work, negative results or</p> <p>13 positive results, both are results, so they're paying</p> <p>14 for my time to consult. Whether it's positive or</p> <p>15 negative to them doesn't matter.</p> <p>16 BY MR. HEGARTY:</p> <p>17 Q. Well, when you said you're acting as a consultant</p> <p>18 regarding this topic, what is this topic? Is it</p> <p>19 inflammation and cancer? Is it antioxidants? Is it</p> <p>20 talc? How is the reader supposed to know?</p> <p>21 MS. O'DELL: Object to the form.</p> <p>22 THE WITNESS: If you read -- the reader will</p> <p>23 read the title, which says Molecular Basis Supporting</p> <p>24 the Association of Talcum Powder Use With Increased</p> <p>25 Risk of Ovarian Cancer; very clear topic.</p>	<p style="text-align: right;">Page 149</p> <p>1 that I was selected to be an expert witness in this</p> <p>2 topic.</p> <p>3 BY MR. HEGARTY:</p> <p>4 Q. And you told them that before you started the</p> <p>5 experiments?</p> <p>6 A. About, yeah.</p> <p>7 Q. You are the senior author on this paper, correct?</p> <p>8 A. Correct.</p> <p>9 Q. Do you in any way supervise or do you in any way</p> <p>10 supervise any of the work of the other authors?</p> <p>11 A. All the work that is in this manuscript is done under</p> <p>12 my hundred percent supervision.</p> <p>13 Q. How about generally, do you supervise any of the other</p> <p>14 authors?</p> <p>15 A. I do.</p> <p>16 Q. Do they report to you?</p> <p>17 A. Yes.</p> <p>18 Q. Which ones report directly to you?</p> <p>19 A. So Nicole King, Ira, Amy, and that's about all the</p> <p>20 authors here.</p> <p>21 Q. Are you a resource for grant funding for things that</p> <p>22 they work on?</p> <p>23 MS. O'DELL: Object to the form.</p> <p>24 THE WITNESS: Am I a resource?</p> <p>25</p>

38 (Pages 146 to 149)

Ghassan Saed, Ph.D.

Page 150	Page 152
<p>1 BY MR. HEGARTY:</p> <p>2 Q. Yes. Do they work on studies that you have received</p> <p>3 funding for?</p> <p>4 A. No.</p> <p>5 Q. Do they otherwise work for you -- let me strike that.</p> <p>6 Do they work for you -- have they done work for you</p> <p>7 outside of the work on this manuscript?</p> <p>8 A. Some of them --</p> <p>9 MS. O'DELL: Object to form.</p> <p>10 THE WITNESS: Some of them did.</p> <p>11 BY MR. HEGARTY:</p> <p>12 Q. Do some of them still work for you?</p> <p>13 A. Yes.</p> <p>14 Q. Which of the authors still work for you?</p> <p>15 MS. O'DELL: Object to the form.</p> <p>16 THE WITNESS: Work for me or work with me?</p> <p>17 BY MR. HEGARTY:</p> <p>18 Q. Work for you.</p> <p>19 A. Work for me?</p> <p>20 MS. O'DELL: Object to the form.</p> <p>21 THE WITNESS: So what's work for me means?</p> <p>22 I'm their supervisor?</p> <p>23 BY MR. HEGARTY:</p> <p>24 Q. Yes.</p> <p>25 A. I'm paying their salary?</p>	<p>1 January 16, 2019. Do you see where it lists SAGE</p> <p>2 Publications, underneath that Reproductive Sciences?</p> <p>3 A. This here?</p> <p>4 Q. Yes, at the top. SAGE and Reproductive Sciences.</p> <p>5 A. Yes.</p> <p>6 Q. Reproductive Sciences is a journal that has accepted</p> <p>7 your article for publication, correct?</p> <p>8 A. Yes.</p> <p>9 Q. This exhibit identifies the editorial policies, peer</p> <p>10 review policies, and other policies of this</p> <p>11 publication. Are you familiar with all of these</p> <p>12 policies?</p> <p>13 MS. O'DELL: Object to the form.</p> <p>14 THE WITNESS: Some.</p> <p>15 BY MR. HEGARTY:</p> <p>16 Q. Would you turn over to Page 5, sorry, Page 3 of 10.</p> <p>17 Under the section Funding, it states that to comply</p> <p>18 with the guidance for research funders, authors, and</p> <p>19 publishers issued by the Research Information Network,</p> <p>20 RS additionally requires all authors to acknowledge</p> <p>21 their funding in a consistent fashion under a separate</p> <p>22 heading. Do you see that?</p> <p>23 A. Yes.</p> <p>24 Q. Where in your acknowledgment do you acknowledge the</p> <p>25 source of your funding?</p>
Page 151	Page 153
<p>1 Q. You're their supervisor. Are you their supervisor?</p> <p>2 A. Yes, I'm supervisor of Rong Fan, she is my research</p> <p>3 technician or assistant. I am the Fellow Director for</p> <p>4 the fellowship of Amy Harper. And let's see who's</p> <p>5 here, Ira's no longer with us, she went to medical</p> <p>6 school in New York.</p> <p>7 Q. Do you prepare evaluations for -- have you prepared</p> <p>8 evaluations for any of the authors on this paper?</p> <p>9 A. Previously?</p> <p>10 Q. Previously.</p> <p>11 A. Nicole Fletcher.</p> <p>12 Q. Any others?</p> <p>13 A. Yearly evaluation because she was a post doc in my lab,</p> <p>14 and this year I will prepare one for Rong.</p> <p>15 Q. Reproductive Sciences is -- Reproductive Sciences is</p> <p>16 published by SAGE Publications, correct?</p> <p>17 A. I don't know, they keep, they switch different</p> <p>18 publishers.</p> <p>19 SAED DEPOSITION EXHIBIT NUMBER 12,</p> <p>20 SAGE PUBLISHING DOCUMENT,</p> <p>21 WAS MARKED BY THE REPORTER</p> <p>22 FOR IDENTIFICATION</p> <p>23 BY MR. HEGARTY:</p> <p>24 Q. I'm going to mark as Exhibit Number 12 a printout from</p> <p>25 the SAGE Publications website, it's printed out on</p>	<p>1 A. Okay, so this is -- this only applies to agencies that</p> <p>2 require this. So, for example, I got NIH grant, I got</p> <p>3 funding from NIH, I have to disclose funding from NIH.</p> <p>4 If there is no funding, if it's internal funding, you</p> <p>5 don't have to do that.</p> <p>6 Q. Where does that standard -- where is that standard in</p> <p>7 this document?</p> <p>8 A. This is -- I have published in this journal for the</p> <p>9 last 20 years. This is the protocol that we use.</p> <p>10 Q. Can you cite for me any anything that came from SAGE</p> <p>11 Publications saying that that's an appropriate reading</p> <p>12 of the funding requirements?</p> <p>13 MS. O'DELL: Object to the form.</p> <p>14 THE WITNESS: I already told you we published</p> <p>15 with SRI for several years, and my understanding that</p> <p>16 if the agency, the funding agency requests that you</p> <p>17 should add their name to the funding part of it, then</p> <p>18 you should do that. If it's no funding -- departmental</p> <p>19 is not considered funding, that's a burden actually,</p> <p>20 it's not funding.</p> <p>21 BY MR. HEGARTY:</p> <p>22 Q. If you look under the section Declaration of</p> <p>23 Conflicting Interests, you see the last paragraph of</p> <p>24 that section before For More Information, it reads any</p> <p>25 commercial or financial involvements that might</p>

39 (Pages 150 to 153)

Ghassan Saed, Ph.D.

<p style="text-align: center;">Page 154</p> <p>1 represent an appearance of a conflict of interest need</p> <p>2 to be additionally disclosed in the covering letter</p> <p>3 accompanying your article to assist the editor in</p> <p>4 evaluating whether sufficient disclosure has been made</p> <p>5 within the Declaration of Conflicting Interests</p> <p>6 provided in the article. Do you see where I'm reading?</p> <p>7 A. Yes.</p> <p>8 Q. Did you provide such a cover letter to the editor of</p> <p>9 Reproductive Sciences identifying your consulting</p> <p>10 relationship with Beasley Allen?</p> <p>11 A. Okay, so when you go to the website Reproductive</p> <p>12 Sciences and you try to upload your manuscript to be</p> <p>13 considered for review on publication, there are forms</p> <p>14 that -- pages that you go through, and each page you</p> <p>15 have to answer the question before it allows you to</p> <p>16 proceed. So one of the pages was conflict of interest,</p> <p>17 and they, at that level they just want to know if you</p> <p>18 have a conflict of interest, you say "yes" or "no."</p> <p>19 And then later on in the manuscript you identify the</p> <p>20 conflict of interest if there is any.</p> <p>21 Q. When you were asked if you had a conflict of interest</p> <p>22 how did you respond?</p> <p>23 A. Yes.</p> <p>24 Q. Then you went to the next page that that would lead you</p> <p>25 to, and that's where you prepared --</p>	<p style="text-align: center;">Page 156</p> <p>1 A. If I did, yes.</p> <p>2 Q. If you sent a cover letter, do you recall if you</p> <p>3 provided information about the conflict of interest you</p> <p>4 disclosed in your paper or manuscript?</p> <p>5 MS. O'DELL: Object to the form.</p> <p>6 THE WITNESS: Yeah, if I provided the cover</p> <p>7 letter, will there be a conflict of interest in the</p> <p>8 cover letter?</p> <p>9 BY MR. HEGARTY:</p> <p>10 Q. Yes. Do you recall if you described the conflict of</p> <p>11 interest in your cover letter as required under the</p> <p>12 SAGE Publishing guidelines, Exhibit Number 12?</p> <p>13 MS. O'DELL: Objection to form.</p> <p>14 THE WITNESS: Yes, so in our practice I have</p> <p>15 been publishing with this particular journal and other</p> <p>16 journals, I never seen a cover letter saying that we</p> <p>17 have a conflict of interest. It's not a practice of</p> <p>18 talking to the editor and tell them that this is</p> <p>19 what --</p> <p>20 BY MR. HEGARTY:</p> <p>21 Q. In any of your prior publications have you ever</p> <p>22 disclosed a conflict of interest?</p> <p>23 A. Yes.</p> <p>24 Q. And do you recall an example of when you disclosed a</p> <p>25 conflict of interest?</p>
<p style="text-align: center;">Page 155</p> <p>1 A. Your manuscript.</p> <p>2 Q. -- the Acknowledgment Section, correct?</p> <p>3 A. No.</p> <p>4 Q. Sorry, the Conflict of Interest Section.</p> <p>5 A. No, no. Okay, so you write -- this is part of the</p> <p>6 format of the manuscript, the acknowledgment, the</p> <p>7 conflict of interest, that's the setup. Like how it</p> <p>8 says abstract, key words, introduction, methods, all</p> <p>9 that, this is part of the format, so this has to be in</p> <p>10 the manuscript, we upload to them.</p> <p>11 Q. What did you type in on that online form when you said</p> <p>12 yes to having a conflict of interest and then it</p> <p>13 directed you to another --</p> <p>14 A. There is no other form, they direct you to upload your</p> <p>15 manuscript. They accepted your yes answer, and then</p> <p>16 they allow you to proceed. If you don't answer, you</p> <p>17 are not allowed to proceed.</p> <p>18 Q. Exhibit Number 12 also says in the paragraph that I</p> <p>19 read to you that in addition to what you just</p> <p>20 described, that you need to include such a disclosure</p> <p>21 in the cover letter accompanying your article. First</p> <p>22 of all, did you send a cover letter with your article?</p> <p>23 A. I can't remember if it was required.</p> <p>24 Q. If you sent a cover letter, do you still have a copy of</p> <p>25 that cover letter?</p>	<p style="text-align: center;">Page 157</p> <p>1 A. When?</p> <p>2 Q. Yes. Do you recall an example of when you disclosed a</p> <p>3 conflict of interest?</p> <p>4 A. Every manuscript you submit you have to disclose a</p> <p>5 conflict of interest, whether it's yes or no, you have</p> <p>6 to.</p> <p>7 Q. Well, let me ask it a different way. Have you ever</p> <p>8 included a conflict of interest statement like the one</p> <p>9 in your manuscript in any prior publication of yours?</p> <p>10 A. Very rare, because I never consult -- I don't consult</p> <p>11 usually in this caliber, but colleagues, co-authors</p> <p>12 have done that, and there are co-authors in my</p> <p>13 publications. Everybody has to disclose.</p> <p>14 SAED DEPOSITION EXHIBIT NUMBER 13,</p> <p>15 SAGE PUBLISHING DOCUMENT,</p> <p>16 WAS MARKED BY THE REPORTER</p> <p>17 FOR IDENTIFICATION</p> <p>18 BY MR. HEGARTY:</p> <p>19 Q. We'll mark as Exhibit 13 another printout from the SAGE</p> <p>20 Publications website on the ethics and responsibility</p> <p>21 of authors. Would you look at Exhibit 13, Doctor.</p> <p>22 A. Yes.</p> <p>23 Q. Under the section Authors, it says authors should</p> <p>24 ensure that, and go down several bullet points where it</p> <p>25 reads any real or apparent conflicting or competing</p>

40 (Pages 154 to 157)

Ghassan Saed, Ph.D.

Page 158	Page 160
<p>1 interest is clearly stated on submission of their</p> <p>2 paper. (This would include funding assistance). Do</p> <p>3 you see that?</p> <p>4 A. Where do you -- where is this --</p> <p>5 Q. It's the bullet point, second to last bullet point at</p> <p>6 the very bottom of the page.</p> <p>7 A. Yes.</p> <p>8 Q. So this is saying that any -- an author should ensure</p> <p>9 that any real or apparent conflicting or competing</p> <p>10 interest is clearly stated on submission of their</p> <p>11 paper. (This would include funding assistance). Do</p> <p>12 you see where I'm reading?</p> <p>13 A. Yes.</p> <p>14 Q. And is it your contention that you did that in this</p> <p>15 manuscript?</p> <p>16 A. I did.</p> <p>17 Q. You did not disclose in this manuscript that you</p> <p>18 received funding for this paper by attorneys in</p> <p>19 litigation, did you?</p> <p>20 A. I did, yes, I said consulting for a fee.</p> <p>21 Q. Where do you make reference to consulting for a fee in</p> <p>22 litigation?</p> <p>23 A. That's my --</p> <p>24 MS. O'DELL: Objection to form.</p> <p>25 THE WITNESS: That's my understanding.</p>	<p>1 The first paragraph of the letter makes</p> <p>2 reference to comments of the reviewers being included</p> <p>3 at the bottom of this letter, and we'll get to those</p> <p>4 comments, but you did receive comments back from</p> <p>5 reviewers of this article, correct?</p> <p>6 THE WITNESS: This is the only thing I</p> <p>7 received.</p> <p>8 BY MR. HEGARTY:</p> <p>9 Q. Did you eventually receive comments back from reviewers</p> <p>10 of the article?</p> <p>11 A. This is the only letter I received.</p> <p>12 Q. In addition to the letter, you did receive comments</p> <p>13 from authors of the -- I'm sorry -- from reviewers of</p> <p>14 the manuscript, correct?</p> <p>15 MS. O'DELL: Objection, asked and answered.</p> <p>16 THE WITNESS: Is this the whole --</p> <p>17 BY MR. HEGARTY:</p> <p>18 Q. Let me mark as Exhibit 14 --</p> <p>19 A. Is this the whole letter?</p> <p>20 MS. O'DELL: I think it's two pages.</p> <p>21 THE WITNESS: It's two pages? This is the</p> <p>22 whole e-mail?</p> <p>23</p> <p>24</p> <p>25</p>
Page 159	Page 161
<p>1 BY MR. HEGARTY:</p> <p>2 Q. You chose to use the words you set out in the Conflict</p> <p>3 of Interest Section, correct?</p> <p>4 A. Yes.</p> <p>5 Q. You agree that your relationship as a consultant does</p> <p>6 present a conflict of interest?</p> <p>7 MS. O'DELL: Object to the form.</p> <p>8 THE WITNESS: My relationship?</p> <p>9 BY MR. HEGARTY:</p> <p>10 Q. Yes, as a consultant does present a conflict of</p> <p>11 interest, which is why you included a Conflict of</p> <p>12 Interest Statement, correct?</p> <p>13 MS. O'DELL: Object to the form.</p> <p>14 THE WITNESS: We keep going back the same</p> <p>15 circles. What's the question?</p> <p>16 BY MR. HEGARTY:</p> <p>17 Q. You agree that your relationship with attorneys for</p> <p>18 Beasley Allen presents a conflict of interest that you</p> <p>19 needed to disclose?</p> <p>20 A. I disclosed that, yes.</p> <p>21 Q. If you would look at the letter on the very back page</p> <p>22 again of Exhibit Number 7.</p> <p>23 MS. O'DELL: Is the intent of the exhibit to</p> <p>24 include all of the communications or just this one?</p> <p>25 MR. HEGARTY: Start with this one.</p>	<p>1 SAED DEPOSITION EXHIBIT NUMBER 14,</p> <p>2 COPY OF LETTER FROM REPRODUCTIVE SCIENCES,</p> <p>3 WAS MARKED BY THE REPORTER</p> <p>4 FOR IDENTIFICATION</p> <p>5 BY MR. HEGARTY:</p> <p>6 Q. I'm going to mark as Exhibit 14 in addition to what we</p> <p>7 had received in connection with that manuscript, but</p> <p>8 this is the letter with the reviewer comments included.</p> <p>9 A. Yeah, this is all I received.</p> <p>10 Q. Is Exhibit Number 14 a copy of the letter with the</p> <p>11 reviewer comments at the end?</p> <p>12 A. Okay, this is all I received.</p> <p>13 Q. When you say this, you're talking about --</p> <p>14 A. The letter.</p> <p>15 Q. -- number 14?</p> <p>16 A. Yeah, the e-mail.</p> <p>17 Q. The next paragraph in that e-mail, the second paragraph</p> <p>18 says that the reviewers have recommended publication</p> <p>19 but also suggest some minor revisions to your</p> <p>20 manuscript. Therefore, I invite you to respond to the</p> <p>21 viewer's comments and revise your manuscript. Do you</p> <p>22 see where I'm reading?</p> <p>23 A. Yes.</p> <p>24 Q. Did you respond to the reviewer's comments?</p> <p>25 A. Yes.</p>

41 (Pages 158 to 161)

Ghassan Saed, Ph.D.

Page 162	Page 164
<p>1 Q. Did you respond to reviewer's comments via e-mail?</p> <p>2 A. No, you can't do that.</p> <p>3 Q. How did you respond to viewer's comments?</p> <p>4 A. So you have to log in to Manuscript Central, you have</p> <p>5 to go to Revised Manuscript, and you have to include</p> <p>6 highlighted changes in the revised manuscript, and then</p> <p>7 you have to submit that to the reviewer one more time.</p> <p>8 Q. And did you do that in this case?</p> <p>9 A. Yes.</p> <p>10 Q. Do you still have a copy of the highlighted copy of the</p> <p>11 revisions that you submitted to the reviewers?</p> <p>12 A. Yes, and, also, it's in the website for the journal.</p> <p>13 Q. If you look down at Paragraph 6 of Exhibit 14, it reads</p> <p>14 when submitting your revised manuscript, you will be</p> <p>15 able to respond to the comments made by the reviewers</p> <p>16 in the space provided. So is there actually a space</p> <p>17 provided where you can actually communicate with the</p> <p>18 reviewers?</p> <p>19 A. (Witness shakes head from side to side.) You can't</p> <p>20 communicate with the reviewers.</p> <p>21 Q. Is there any way to respond?</p> <p>22 A. I don't know who they are, yes, you have to write your</p> <p>23 response but to the editor, not to the reviewer. I</p> <p>24 don't know who is the reviewer.</p> <p>25 Q. So did you write a response to the comments to the</p>	<p>1 A. I don't know, I don't know because they -- you write</p> <p>2 them, you write them in a space online, and they</p> <p>3 incorporate them into the manuscript if they agree with</p> <p>4 it, maybe disagree. So they send it to the reviewer,</p> <p>5 and the reviewer will decide, okay, I like this</p> <p>6 explanation, add it to the manuscript, or this</p> <p>7 explanation is already in the manuscript, which I</p> <p>8 recall I said to the reviewer, to the editor.</p> <p>9 Q. You recall saying to the editor that this -- as to this</p> <p>10 comment, it was already in the manuscript?</p> <p>11 A. Yes, I said this has been addressed in this section of</p> <p>12 manuscript; however, this is what we believe the</p> <p>13 molecular mechanism is all about. And he sent it to</p> <p>14 the reviewer, and the reviewer will say I agree, go</p> <p>15 ahead, accept, or I disagree, I think they should edit,</p> <p>16 or we don't like the whole comment.</p> <p>17 Q. Do you still have a copy of your response to this</p> <p>18 reviewer's comment?</p> <p>19 A. Again, this is done on the website.</p> <p>20 Q. Is that comment still on the website, to your</p> <p>21 knowledge?</p> <p>22 A. I don't know, but I can find it.</p> <p>23 Q. Well, what is the mechanism by which the ovary, and not</p> <p>24 the vagina, the cervix, or the endometrium are</p> <p>25 susceptible to talc effects, in your opinion?</p>
Page 163	Page 165
<p>1 editor?</p> <p>2 A. Correct.</p> <p>3 Q. And do you still have a copy of that response?</p> <p>4 A. It's uploaded in the manuscript center, and I do have a</p> <p>5 copy, yes.</p> <p>6 Q. With regard to the reviewer comments, if you look at</p> <p>7 the second page of Exhibit 14, the first sentence under</p> <p>8 Comments and Suggestions, it reads what is the</p> <p>9 mechanism by which the ovary and not the vagina, the</p> <p>10 cervix, or the endometrium are susceptible to talc</p> <p>11 effects? Do you see where I'm reading?</p> <p>12 A. Yes, sorry.</p> <p>13 Q. Did you include any explanation in your revised</p> <p>14 manuscript to explain the mechanism by which the ovary</p> <p>15 and not the vagina and the cervix and the endometrium</p> <p>16 are susceptible talc effects?</p> <p>17 A. It was in the letter and response to the reviewer, to</p> <p>18 the editor, yes, it was in the form that you submit.</p> <p>19 Q. Did you revise your manuscript to include such a</p> <p>20 discussion about the mechanism by which the ovary and</p> <p>21 not the vagina, the cervix, or the endometrium are</p> <p>22 susceptible to talc effects?</p> <p>23 A. I believe I did, I added three sentences to clarify</p> <p>24 that.</p> <p>25 Q. Where in your manuscript are those three sentences?</p>	<p>1 A. So, in my opinion, that talcum powder, talcum particles</p> <p>2 go -- transfer, it's an open access for genital use.</p> <p>3 When they use it for genital use, it goes into the</p> <p>4 ovaries and incorporate into the tissues, and this</p> <p>5 continuously induce chronic inflammation that is linked</p> <p>6 strongly and actually the cause of ovarian cancer. Why</p> <p>7 other tissues don't get it, there are more than one</p> <p>8 explanation to that if you'd like to hear it.</p> <p>9 Q. Well, yeah, because I want to know what you believe to</p> <p>10 be the difference in the ovary versus the other organs.</p> <p>11 A. Yes. First, cancer is a tissue specific like cervical</p> <p>12 cancer, HPV so -- Second is the area in the uterus is</p> <p>13 full of secretion, and there is a dilution factor that</p> <p>14 kick everything out, whereas if it make it -- if the</p> <p>15 particles makes it to the ovaries, they sit there</p> <p>16 indefinitely.</p> <p>17 Q. Anything else?</p> <p>18 A. For now.</p> <p>19 Q. What about the -- you mentioned, though, the uterus.</p> <p>20 What about the vagina and cervix?</p> <p>21 A. What about --</p> <p>22 Q. Why is the ovary affected and not the vagina and</p> <p>23 cervix?</p> <p>24 A. Shall I repeat that, my answer?</p> <p>25 Q. Is it the same reason in your opinion?</p>

Ghassan Saed, Ph.D.

Page 166	Page 168
<p>1 A. It's the wash, it's the dilution factor, it's the</p> <p>2 excretion, it's always excretions, but ovaries are not.</p> <p>3 Q. And is that opinion somewhere in Exhibit Number 7? You</p> <p>4 said it already is in the section. In what section is</p> <p>5 that concept?</p> <p>6 A. So the peristaltic travel of the talcum particles into</p> <p>7 the ovary has been actually discussed somewhere.</p> <p>8 Q. That's over at the bottom of Page 8. Is that the</p> <p>9 portion of the paper that you say already addresses</p> <p>10 this comment?</p> <p>11 A. Yes, part of it.</p> <p>12 Q. Where else in the manuscript do you address this</p> <p>13 comment by one of the reviewers?</p> <p>14 A. I think this is sufficient, in my opinion, to show</p> <p>15 evidence that there is a transfer of the particles from</p> <p>16 the vagina and uterus area and fallopian tube into the</p> <p>17 ovaries, that's substantial.</p> <p>18 Q. The next comment reads what do the authors believe is</p> <p>19 the determining factor for the increased sensitivity of</p> <p>20 the epithelial ovarian cells to talc? You see where</p> <p>21 I'm reading?</p> <p>22 A. Where is that? Where is it?</p> <p>23 Q. In the second comment that begins --</p> <p>24 A. Oh, the determining factor.</p> <p>25 Q. What is -- the second comment is what do the authors</p>	<p>1 the epithelial ovarian cells to talc?</p> <p>2 A. Chronic inflammation.</p> <p>3 Q. And how is chronic inflammation -- or strike that --</p> <p>4 how are epithelial ovarian cells, how do they have</p> <p>5 increased sensitivity to chronic inflammation?</p> <p>6 A. So this is what actually made them in the first place.</p> <p>7 It's the fact that they are exposed to continuously</p> <p>8 over time with talcum particles, and that created a</p> <p>9 chronic inflammation that actually transformed those</p> <p>10 cells and caused the cells to go, the epithelial</p> <p>11 ovarian cells to go cancerous with time.</p> <p>12 Q. So, in your opinion, for purposes of your biologic</p> <p>13 mechanism for talc causing ovarian cancer, talc must</p> <p>14 reach the ovary, correct?</p> <p>15 MS. O'DELL: Object to the form.</p> <p>16 THE WITNESS: Not necessarily.</p> <p>17 BY MR. HEGARTY:</p> <p>18 Q. Well, the processes you just described all involve talc</p> <p>19 reaching the ovary, correct?</p> <p>20 A. No. I said any environment that create chronic</p> <p>21 inflammation to the ovaries, epithelial ovarian cells,</p> <p>22 normal ones, can or are known to develop this signature</p> <p>23 of pro-oxidant state. We have published that in</p> <p>24 several manuscripts.</p> <p>25 Q. So, in your opinion, where must talc go to cause the</p>
Page 167	Page 169
<p>1 believe is the determining factor for the increased</p> <p>2 sensitivity of the epithelial ovarian cells to talc?</p> <p>3 How did you respond to that comment?</p> <p>4 A. This is the core of the actual, the whole manuscript,</p> <p>5 is about chronic inflammation and its link to ovarian</p> <p>6 cancer.</p> <p>7 Q. Did you revise your manuscript in response to this</p> <p>8 reviewer comment?</p> <p>9 A. Yes.</p> <p>10 Q. How did you revise the transcript -- I'm sorry -- the</p> <p>11 manuscript in response to this reviewer comment?</p> <p>12 A. So we took the last part, we cut some words out, it</p> <p>13 says wordy --</p> <p>14 Q. I'm not talking about that comment yet.</p> <p>15 A. Which comment?</p> <p>16 Q. The determining factor comment.</p> <p>17 A. I told you, you don't need necessarily to agree with</p> <p>18 the reviewer comment, you just put it in the -- there's</p> <p>19 a box when you go online, and you just say we believe</p> <p>20 that the manuscript is all about why ovarian cancer are</p> <p>21 sensitive to inflammation.</p> <p>22 Q. Is that how you responded to this reviewer comment?</p> <p>23 A. Yes.</p> <p>24 Q. So what is your opinion as to what you believe the</p> <p>25 determining factor is for the increased sensitivity of</p>	<p>1 inflammation that you say can cause ovarian cancer?</p> <p>2 MS. O'DELL: Objection to form.</p> <p>3 THE WITNESS: Yeah, so I don't know, but what</p> <p>4 I'm saying is the genital use of talcum powder expose</p> <p>5 the genital tract, the reproductive tract to chronic</p> <p>6 inflammation that, according to our 30 years of</p> <p>7 studies, is linked and the cause of ovarian cancer.</p> <p>8 BY MR. HEGARTY:</p> <p>9 Q. Well, where in the genital tract must the chronic</p> <p>10 inflammation occur to cause ovarian cancer?</p> <p>11 A. If the environment is chronic and it has chronic</p> <p>12 inflammation -- so preferred will be -- the first thing</p> <p>13 will be actual contact, which would be in the ovaries,</p> <p>14 second would be fallopian tube, and there are many</p> <p>15 studies now indicating that the source of epithelial</p> <p>16 ovarian cancer come from fallopian tube, and fallopian</p> <p>17 tube is very close to the uterus and that close to the</p> <p>18 cervix and vagina, so that's an open access in the</p> <p>19 body.</p> <p>20 Q. So you mentioned -- as far as where the chronic</p> <p>21 inflammation must consider, you mentioned the ovary and</p> <p>22 the fallopian tube. Is there any other organ in the</p> <p>23 reproductive tract that you believe if it becomes</p> <p>24 inflamed due to talc can lead to ovarian cancer?</p> <p>25 MS. O'DELL: Object to the form.</p>

43 (Pages 166 to 169)

Ghassan Saed, Ph.D.

Page 170	Page 172
<p>1 THE WITNESS: Yeah, I -- no, I understood</p> <p>2 your question, but I disagree, that's not what I said.</p> <p>3 BY MR. HEGARTY:</p> <p>4 Q. What did you say?</p> <p>5 A. No. So what I said is the use of talcum powder allows</p> <p>6 talcum particles, according to our research, we added</p> <p>7 the particles to the cells, the cells showed</p> <p>8 inflammatory response. So we expect if the talcum</p> <p>9 powder enter the genital area, go to -- and I said I,</p> <p>10 you know, organized them for you, so the most effect</p> <p>11 will be if they are in the ovary, and we already have</p> <p>12 evidence, and not just us, every -- all the world know</p> <p>13 now, that acute inflammation does not cause cancer, is</p> <p>14 not linked to cancer, it may initiate cancer, but</p> <p>15 chronic inflammation is the real trigger for cancer in</p> <p>16 general and ovarian cancer. And we have shown that all</p> <p>17 these redox balance is altered in ovarian cancer cells.</p> <p>18 So the first impact, the highest impact will be if the</p> <p>19 particle is in the ovary, and this has been reported by</p> <p>20 some people, and the second or less degree, less impact</p> <p>21 or longer time, maybe it's the same impact but it's a</p> <p>22 longer time probably, all this need to be further</p> <p>23 studied, is in the fallopian tube, and then who knows</p> <p>24 what it does to uterus and cervical area.</p> <p>25 Q. Well, I thought you said when you responded to the</p>	<p>1 cancer risk?</p> <p>2 Q. Question is very specific. Can you cite for me any</p> <p>3 published literature reporting finding chronic</p> <p>4 inflammation in the presence of talc in the fallopian</p> <p>5 tubes or ovaries or the endometrium in women using</p> <p>6 talc?</p> <p>7 MS. O'DELL: Objection to the form.</p> <p>8 Epidemiological studies is what the doctor asked you to</p> <p>9 clarify. Is that what you meant?</p> <p>10 THE WITNESS: Do you --</p> <p>11 BY MR. HEGARTY:</p> <p>12 Q. I don't think -- I'm not talking about epidemiologic</p> <p>13 studies. I'm talking about can you cite for me any</p> <p>14 studies that report finding inflamed tissue in the</p> <p>15 presence of talc in women using talc on the perineum?</p> <p>16 MS. O'DELL: Object to the form.</p> <p>17 THE WITNESS: So your question is any</p> <p>18 manuscript, any papers, any papers that cite or discuss</p> <p>19 the presence of inflamed tissues in response to woman</p> <p>20 using talcum powder.</p> <p>21 BY MR. HEGARTY:</p> <p>22 Q. Correct.</p> <p>23 A. And my answer to you is I don't know any references.</p> <p>24 What I do know, that there are lots of epidemiological</p> <p>25 studies that link woman who uses talcum powder are at</p>
Page 171	Page 173
<p>1 question, the comment that said the mechanism which the</p> <p>2 ovary and not the vagina, the cervix, or the</p> <p>3 endometrium are susceptible, that this washing keeps</p> <p>4 those organs from being susceptible. So the</p> <p>5 endometrium is in the uterus, correct?</p> <p>6 MS. O'DELL: Object to the form.</p> <p>7 THE WITNESS: Okay. So the question here</p> <p>8 they are asking about mechanisms in the ovaries, so</p> <p>9 that's what I responded to.</p> <p>10 BY MR. HEGARTY:</p> <p>11 Q. Well, do you consider the endometrium to be a</p> <p>12 susceptible organ to talc in the sense that it can</p> <p>13 cause inflammation that can lead to ovarian cancer?</p> <p>14 A. Probably.</p> <p>15 Q. Can you cite for me any published scientific or medical</p> <p>16 article reporting inflammation of the ovaries or</p> <p>17 inflammation of the fallopian tubes or the endometrium</p> <p>18 in women using talc?</p> <p>19 MS. O'DELL: Object to the form.</p> <p>20 THE WITNESS: So can I report articles for</p> <p>21 you?</p> <p>22 BY MR. HEGARTY:</p> <p>23 Q. Yes.</p> <p>24 A. There are -- are you talking about gynecological</p> <p>25 studies that link the use of -- in women to ovarian</p>	<p>1 increased risk of developing ovarian cancer. That is</p> <p>2 in the literature everywhere. There are some few</p> <p>3 molecular work also indicating that this also can cause</p> <p>4 inflammation, oxidative stress, it's out in there.</p> <p>5 There are some other molecular works that also shows</p> <p>6 that there is actually gene expression differential,</p> <p>7 gene expression in exposure to talc, and this is</p> <p>8 really -- I mean this powder, this particle cause</p> <p>9 biological changes to the cell, so I am not surprised</p> <p>10 if it does the same inside the genital tract.</p> <p>11 Q. The next comment in Exhibit Number 14 says the</p> <p>12 manuscript is wordy and would benefit from an attentive</p> <p>13 reduction, do you see that?</p> <p>14 A. I did.</p> <p>15 Q. How did you respond to that comment?</p> <p>16 A. I agreed, and I shaped some words unnecessary</p> <p>17 references that we have established methodology that we</p> <p>18 don't need to do, to have.</p> <p>19 SAED DEPOSITION EXHIBIT NUMBER 15,</p> <p>20 JANUARY 14, 2019 E-MAIL,</p> <p>21 WAS MARKED BY THE REPORTER</p> <p>22 FOR IDENTIFICATION</p> <p>23 BY MR. HEGARTY:</p> <p>24 Q. I want to next mark as Exhibit 15 another reviewer</p> <p>25 comment that we were provided. Do you recognize</p>

Ghassan Saed, Ph.D.

<p style="text-align: right;">Page 174</p> <p>1 Exhibit 15?</p> <p>2 A. This is an e-mail from the editor.</p> <p>3 Q. Yes.</p> <p>4 A. Yes, saying that they accepted the manuscript.</p> <p>5 Q. This is dated January 14, 2019, correct?</p> <p>6 A. Okay.</p> <p>7 Q. Is that right?</p> <p>8 A. Yes, it says so.</p> <p>9 Q. Then again it -- strike that. Below it says Reviewer:</p> <p>10 1, correct?</p> <p>11 A. Yes.</p> <p>12 Q. Comments to the author. Well done.</p> <p>13 A. Yes.</p> <p>14 Q. Was there only one reviewer for purposes of your paper?</p> <p>15 A. Yes, Reviewer: 1.</p> <p>16 Q. In what I marked as Exhibit Number 15 is Reviewer 1's</p> <p>17 comment after you made changes to your paper?</p> <p>18 A. Correct.</p> <p>19 Q. So the peer review for this article had one reviewer,</p> <p>20 correct?</p> <p>21 A. No, I don't know.</p> <p>22 Q. Did you get comments back from any other reviewer?</p> <p>23 A. I review comments, I review manuscripts for many</p> <p>24 journals. If you have no comments or if you have good</p> <p>25 comments, I don't need to show them.</p>	<p style="text-align: right;">Page 176</p> <p>1 BY MR. HEGARTY:</p> <p>2 Q. I'm going to mark as Exhibit Number 16 a copy of the</p> <p>3 expert report for you we were provided in this case.</p> <p>4 Is Exhibit Number 16 your expert report in this case?</p> <p>5 A. Yes.</p> <p>6 Q. There are large portions of the manuscript that are</p> <p>7 identical to your report, correct?</p> <p>8 A. I don't know about large, but based on it, yes.</p> <p>9 Q. Which was prepared first, the manuscript or the report?</p> <p>10 A. This is November, and the manuscript was September, so</p> <p>11 the manuscript was first.</p> <p>12 Q. Did you conduct the experiments that are described in</p> <p>13 the manuscript for Beasley Allen?</p> <p>14 A. Say that again, please.</p> <p>15 Q. Did you conduct the experiments that are in the</p> <p>16 manuscript for Beasley Allen?</p> <p>17 MS. O'DELL: Object to the form.</p> <p>18 THE WITNESS: The experiment I did, I did it</p> <p>19 in my lab for me.</p> <p>20 BY MR. HEGARTY:</p> <p>21 Q. Was the work that you did on -- in conducting the</p> <p>22 experiments and doing the manuscript independent of</p> <p>23 Beasley Allen or any counsel for Plaintiffs?</p> <p>24 MS. O'DELL: Object to the form.</p> <p>25 THE WITNESS: The work that I did in the lab,</p>
<p style="text-align: right;">Page 175</p> <p>1 Q. Do you know how many reviewers --</p> <p>2 A. No knowledge.</p> <p>3 Q. Let me finish -- do you know how many reviewers</p> <p>4 Reproductive Sciences had for your manuscript?</p> <p>5 A. No.</p> <p>6 MR. HEGARTY: Let's go off the record real</p> <p>7 quick. I need to take just a quick break and we'll be</p> <p>8 right back.</p> <p>9 THE VIDEOGRAPHER: Going off the record at</p> <p>10 2:23 p.m.</p> <p>11 (A short recess was taken.)</p> <p>12 THE VIDEOGRAPHER: We're back on the record</p> <p>13 at 2:28 p.m.</p> <p>14 BY MR. HEGARTY:</p> <p>15 Q. Dr. Saed, are there any other communications between</p> <p>16 you and the editors of Reproductive Sciences that we've</p> <p>17 not talked about today?</p> <p>18 A. Not that I'm aware of.</p> <p>19 Q. Do you know when your article is supposed to be</p> <p>20 published?</p> <p>21 A. I don't know.</p> <p>22 SAED DEPOSITION EXHIBIT NUMBER 16,</p> <p>23 EXPERT REPORT,</p> <p>24 WAS MARKED BY THE REPORTER</p> <p>25 FOR IDENTIFICATION</p>	<p style="text-align: right;">Page 177</p> <p>1 no one has any interference in how it's designed, what</p> <p>2 the method should be used, how to analyze the data, how</p> <p>3 to write the manuscript, all that is all mine.</p> <p>4 UNIDENTIFIED ATTORNEY: Objection,</p> <p>5 nonresponsive.</p> <p>6 BY MR. HEGARTY:</p> <p>7 Q. Going back to my question, was the experiment you</p> <p>8 conducted and the manuscript that you wrote independent</p> <p>9 of your work with Beasley Allen in this litigation?</p> <p>10 MS. O'DELL: Objection to the form.</p> <p>11 THE WITNESS: So I was paid for my time as a</p> <p>12 consultant, but this work was funded by my lab.</p> <p>13 BY MR. HEGARTY:</p> <p>14 Q. But going back to the experiments that you did and the</p> <p>15 manuscript that you wrote, were those separate -- was</p> <p>16 that a separate piece of work than what you're doing</p> <p>17 with Beasley Allen?</p> <p>18 MS. O'DELL: Object to the form, asked and</p> <p>19 answered.</p> <p>20 THE WITNESS: Separate means -- what do you</p> <p>21 mean by separate?</p> <p>22 BY MR. HEGARTY:</p> <p>23 Q. Separate means unrelated.</p> <p>24 MS. O'DELL: Object to the form.</p> <p>25 THE WITNESS: Yeah, we're -- I'm hired as a</p>

45 (Pages 174 to 177)

Ghassan Saed, Ph.D.

<p style="text-align: right;">Page 178</p> <p>1 witness expert in talc, ovarian cancer and oxidative</p> <p>2 stress, and I am doing work in my lab related to the</p> <p>3 consulting that what I'm doing with Beasley Allen.</p> <p>4 BY MR. HEGARTY:</p> <p>5 Q. So was the work that you did in doing the tests and</p> <p>6 preparing the manuscript independent of your</p> <p>7 relationship with Beasley Allen?</p> <p>8 MS. O'DELL: Objection, asked and answered.</p> <p>9 THE WITNESS: I still don't understand the</p> <p>10 independent type.</p> <p>11 BY MR. HEGARTY:</p> <p>12 Q. Well, was it done --</p> <p>13 A. Can you reformat the question, please.</p> <p>14 Q. Well, was that work separate and unrelated to your work</p> <p>15 with Beasley Allen?</p> <p>16 MS. O'DELL: Object to the form.</p> <p>17 THE WITNESS: It was separate, not -- it is</p> <p>18 related, so I don't know about what separate means, but</p> <p>19 it is related, yes, but in what caliber it's related,</p> <p>20 that's what I want to emphasize. They have no saying</p> <p>21 in any of the work that has been done here.</p> <p>22 BY MR. HEGARTY:</p> <p>23 Q. Would you have done this same work if you were not a</p> <p>24 consultant for Beasley Allen?</p> <p>25 MS. O'DELL: Object to the form.</p>	<p style="text-align: right;">Page 180</p> <p>1 A. Because the whole news and the whole media is all about</p> <p>2 Johnson & Johnson product.</p> <p>3 Q. Did you choose Johnson's Baby Powder because that</p> <p>4 product is in this litigation?</p> <p>5 A. Not in this litigation, but for me, because of the</p> <p>6 media and all these reports that I've been reading and</p> <p>7 the association of woman using Johnson & Johnson Baby</p> <p>8 Powder with increased risk of ovarian cancer.</p> <p>9 Q. Within your lab notebooks, where are the tests that you</p> <p>10 conducted with Fisher Scientific talcum powder?</p> <p>11 A. I can show it to you.</p> <p>12 Q. Okay. You're looking at Exhibit Number 2, the lab</p> <p>13 notebook for the experiments reflected in your --</p> <p>14 MS. O'DELL: I think it's Exhibit 3.</p> <p>15 THE WITNESS: That's Fisher.</p> <p>16 BY MR. HEGARTY:</p> <p>17 Q. I'm sorry. So Exhibit Number 3, which is the lab</p> <p>18 notebook for the pilot study involved Fisher --</p> <p>19 A. Correct.</p> <p>20 Q. -- talc?</p> <p>21 A. Talc.</p> <p>22 Q. The only talc tested as reflected in Exhibit Number 2</p> <p>23 is Johnson & Johnson, Johnson's Baby Powder?</p> <p>24 A. This one here, initially we used both, and then we</p> <p>25 stopped using Fisher and we continued using Johnson &</p>
<p style="text-align: right;">Page 179</p> <p>1 THE WITNESS: I would have done the same type</p> <p>2 of rigorous testing because this is my primary focus of</p> <p>3 my laboratory, and anything that is related to</p> <p>4 inflammation, oxidative stress, and ovarian cancer, it</p> <p>5 is what we like to do in our lab.</p> <p>6 BY MR. HEGARTY:</p> <p>7 Q. Your experiments involved Johnson's Baby Powder,</p> <p>8 correct?</p> <p>9 A. Correct.</p> <p>10 Q. Where did you purchase the Johnson's Baby Powder that</p> <p>11 you used?</p> <p>12 A. Walgreen across the street.</p> <p>13 Q. Why did you choose to use Johnson's Baby Powder in your</p> <p>14 experiment?</p> <p>15 A. Because I want to see if the use of baby powder, talcum</p> <p>16 powder, has any biological effect on ovarian cancer</p> <p>17 cells.</p> <p>18 Q. Why did you choose the Johnson's Baby Powder brand?</p> <p>19 A. I chose Johnson & Johnson baby powder and I chose</p> <p>20 Fisher.</p> <p>21 Q. Why did you choose the Johnson Baby Powder brand versus</p> <p>22 another brand of talcum powder product?</p> <p>23 A. I chose Fisher.</p> <p>24 Q. Why did you choose Johnson's Baby Powder over another</p> <p>25 commercially available baby powder?</p>	<p style="text-align: right;">Page 181</p> <p>1 Johnson.</p> <p>2 Q. Is there any reference in -- to testing Fisher talcum</p> <p>3 powder in Exhibit Number 2?</p> <p>4 A. I can't remember.</p> <p>5 Q. Well, the first page of your -- strike that.</p> <p>6 MS. O'DELL: Just for the record, can we note</p> <p>7 the page it's turned to in Exhibit 3, what page is</p> <p>8 that, in the lab notebook?</p> <p>9 THE WITNESS: Okay.</p> <p>10 MS. O'DELL: What page is it turned to?</p> <p>11 MR. HEGARTY: It's now on Pages 38 and 39.</p> <p>12 MS. O'DELL: Okay.</p> <p>13 BY MR. HEGARTY:</p> <p>14 Q. If you look at Page 5 of your manuscript.</p> <p>15 A. Methodology?</p> <p>16 Q. Not of your report, your manuscript, that's Exhibit 7.</p> <p>17 A. Page 5.</p> <p>18 Q. Page 5.</p> <p>19 A. Okay.</p> <p>20 Q. At the top you say Treatment of cells. Talcum powder</p> <p>21 (Fisher Scientific, Catalog #T4-500, Lot#166820) or</p> <p>22 baby powder, then referencing Johnson & Johnson, was</p> <p>23 dissolved in DMSO, et cetera. Do you see where I'm</p> <p>24 reading?</p> <p>25 A. Yes.</p>

46 (Pages 178 to 181)

Ghassan Saed, Ph.D.

Page 182	Page 184
<p>1 Q. Where in your manuscript do you report the results from</p> <p>2 your tests done on Fisher Scientific talcum powder?</p> <p>3 A. We didn't. This is for the previous abstracts that we</p> <p>4 used which is this.</p> <p>5 Q. So none of the data reported in your manuscript was</p> <p>6 data from experiments involving Fisher Scientific</p> <p>7 talcum powder?</p> <p>8 A. In this manuscript, all the data here, as far as I</p> <p>9 remember, they're all done with Johnson & Johnson.</p> <p>10 Q. Did you run the exact same tests that you report in</p> <p>11 your manuscript with Fisher Scientific talcum powder?</p> <p>12 A. No, we only did this with Fisher, which is PCR.</p> <p>13 MS. O'DELL: And what are you pointing to,</p> <p>14 Doctor, just so the record --</p> <p>15 THE WITNESS: Which is the preliminary</p> <p>16 studies that we used to publish for our SRI abstract</p> <p>17 which was presented March of 2018. There was only one</p> <p>18 component, which is PCR, and some few fact -- and some</p> <p>19 few markers. This is -- this was not an extensive and</p> <p>20 comprehensive study as the one described here. This is</p> <p>21 just preliminary to show there is an effect or there is</p> <p>22 no effect.</p> <p>23 BY MR. HEGARTY:</p> <p>24 Q. What prooxidant or anti-oxidant --</p> <p>25 MS. O'DELL: It's confusing because you're</p>	<p>1 Powder?</p> <p>2 A. Okay. So I'm now referring to this, what's this --</p> <p>3 Q. Exhibit 2.</p> <p>4 A. Exhibit 2 and I did --</p> <p>5 MS. O'DELL: Page --</p> <p>6 THE WITNESS: Here sections PCR, I did ELISA.</p> <p>7 MS. O'DELL: What page does ELISA begin on?</p> <p>8 THE WITNESS: 53.</p> <p>9 MS. O'DELL: Okay.</p> <p>10 THE WITNESS: I did -- all labeled here what</p> <p>11 we did. SNP analysis --</p> <p>12 MS. O'DELL: What page? Starts --</p> <p>13 THE WITNESS: 102.</p> <p>14 MS. O'DELL: Okay.</p> <p>15 THE WITNESS: I did MTT.</p> <p>16 MS. O'DELL: What page?</p> <p>17 THE WITNESS: 106. And statistics final. So</p> <p>18 that's all done with J & J Baby Powder.</p> <p>19 BY MR. HEGARTY:</p> <p>20 Q. Does Exhibit Number 3 contain all the data of your PCR</p> <p>21 tests for Fisher Scientific talcum powder?</p> <p>22 A. Sorry, one more time, please.</p> <p>23 Q. Does Exhibit Number 3 contain all of the data of your</p> <p>24 PCR tests for Fisher Scientific talcum powder?</p> <p>25 A. That we reported this abstract at SRI, yes.</p>
Page 183	Page 185
<p>1 saying this, but you're referring to Exhibit 3, the</p> <p>2 study in Exhibit 3.</p> <p>3 THE WITNESS: This is Exhibit 3?</p> <p>4 MS. O'DELL: Yes.</p> <p>5 MR. FINDEIS: Which page of the exhibit?</p> <p>6 THE WITNESS: 3 is --</p> <p>7 MR. FINDEIS: It's open to which page --</p> <p>8 THE WITNESS: So this is Exhibit 3, Page 38</p> <p>9 onward.</p> <p>10 BY MR. HEGARTY:</p> <p>11 Q. Which pro-oxidant and anti-oxidant enzyme did you look</p> <p>12 at involving Fisher Scientific talcum powder?</p> <p>13 A. So they are all listed here. I'll tell you in one</p> <p>14 second. Catalase.</p> <p>15 MS. O'DELL: What page?</p> <p>16 THE WITNESS: Page 47, catalase GSR, GPX,</p> <p>17 GST, MPO, nitric oxide, SOD3.</p> <p>18 BY MR. HEGARTY:</p> <p>19 Q. And you say you only ran --</p> <p>20 A. PCR.</p> <p>21 Q. And what test did you do beyond PCR with Johnson's Baby</p> <p>22 Powder?</p> <p>23 A. Sorry, I just want to make sure that they're all here,</p> <p>24 okay. So, sorry, what's the question?</p> <p>25 Q. What tests did you do besides PCR with Johnson's Baby</p>	<p>1 Q. In your manuscript you report the enzyme data after 72</p> <p>2 hours.</p> <p>3 A. Enzyme?</p> <p>4 Q. I'm sorry, the protein data after 72 hours.</p> <p>5 A. No, I didn't.</p> <p>6 Q. What did you report after 72 hours?</p> <p>7 A. The effect of treatment after 72 hours. That's totally</p> <p>8 different.</p> <p>9 Q. Why did you choose 72 hours?</p> <p>10 A. It was from a previous paper, one of those two, 72</p> <p>11 hours, they did 48 hours, 72 hours, and I picked 72</p> <p>12 because there is data showing very similar, I can't</p> <p>13 remember the reference of it.</p> <p>14 Q. In your report you describe the results of your tests</p> <p>15 only up to 48 hours, correct?</p> <p>16 A. Where is it, my report --</p> <p>17 Q. Over on Page 14.</p> <p>18 A. Page 14.</p> <p>19 Q. In the section Treatment of Cells.</p> <p>20 A. Where does it say that? Here? Treatment of cells.</p> <p>21 Yeah, this is not accurate, 72 hours, this is a typo.</p> <p>22 Q. So you're saying that the reference to 48 hours in</p> <p>23 Exhibit Number -- what is that marked as, your report?</p> <p>24 MS. O'DELL: 16.</p> <p>25 BY MR. HEGARTY:</p>

47 (Pages 182 to 185)

Ghassan Saed, Ph.D.

Page 186	Page 188
<p>1 Q. 16, so you're saying that the reference to 48 hours in</p> <p>2 Exhibit Number 16 is incorrect and it should be 72</p> <p>3 hours?</p> <p>4 A. Correct, because we did all the work with 72 hours.</p> <p>5 Q. Did you try other durations that are not reported in</p> <p>6 your report or manuscript?</p> <p>7 A. No.</p> <p>8 Q. At the bottom of Page 8 of your manuscript, Exhibit 7.</p> <p>9 A. Exhibit 7, that's Exhibit 8, oh, I have two, two</p> <p>10 manuscripts.</p> <p>11 Q. 7 and 8 are identical.</p> <p>12 A. Okay.</p> <p>13 Q. Bottom of Page 7.</p> <p>14 A. Page 7.</p> <p>15 Q. You made reference to this before to citing to</p> <p>16 something called the peristaltic pump; do you see that?</p> <p>17 A. Page 7.</p> <p>18 Q. Page 8.</p> <p>19 A. Oh, sorry, Page 8, I heard 7, sorry. The last</p> <p>20 sentence.</p> <p>21 Q. Yes, second to the last line.</p> <p>22 A. Feature of uterus, yes.</p> <p>23 Q. That reference is not in your expert report.</p> <p>24 A. This is my paper, okay. So let's see.</p> <p>25 Q. Right, but my question is that the reference to the</p>	<p>1 part of your manuscript to 8 through 10. Did counsel</p> <p>2 for Beasley Allen provide those references to you?</p> <p>3 A. Absolutely not.</p> <p>4 Q. So is it your testimony that you came up with -- that</p> <p>5 you decided on your own to make reference to the</p> <p>6 peristaltic pump in your manuscript?</p> <p>7 A. This is not I decide on my own. This is like a</p> <p>8 collective reading of my reading throughout the whole</p> <p>9 literature. It's not just -- so the hypothesis that we</p> <p>10 have been trying to address for the last 30 years of my</p> <p>11 lab is how -- what's the trigger, what's the initiator</p> <p>12 for ovarian cancer, and there are many hypotheses out</p> <p>13 there, and one of the hypotheses is that something come</p> <p>14 through the genital tract.</p> <p>15 Q. If you turn to Page 9 in your manuscript, you in the</p> <p>16 first sentence of the second paragraph, you say in this</p> <p>17 study, we have shown beyond doubt that talc alters key</p> <p>18 redox and inflammatory markers, et cetera. Do you see</p> <p>19 what I'm reading?</p> <p>20 A. Yes.</p> <p>21 Q. Have you ever used the phrase "beyond doubt" before in</p> <p>22 any published article of yours?</p> <p>23 A. I believe I did.</p> <p>24 Q. Can you cite for me one where you use that phrase?</p> <p>25 A. Not now.</p>
Page 187	Page 189
<p>1 peristaltic pump is nowhere in Exhibit Number 16, your</p> <p>2 expert report. Why did you not include that in your</p> <p>3 expert report?</p> <p>4 A. Is it not included? I don't know, I trust you.</p> <p>5 MS. O'DELL: Take a look.</p> <p>6 THE WITNESS: Let me take a look. So Number</p> <p>7 8 is -- this is the manuscript, where are the</p> <p>8 references? So do I have the references here?</p> <p>9 BY MR. HEGARTY:</p> <p>10 Q. I'll represent, Doctor, that it's not in there. Do you</p> <p>11 recall when you came across a reference to this phrase</p> <p>12 the peristaltic pump?</p> <p>13 MS. O'DELL: Objection to the form.</p> <p>14 THE WITNESS: Okay, sorry.</p> <p>15 BY MR. HEGARTY:</p> <p>16 Q. Yes, you do you recall when in the writing process for</p> <p>17 your manuscript you came across a reference to this</p> <p>18 thing called a peristaltic pump?</p> <p>19 MS. O'DELL: Objection to form.</p> <p>20 THE WITNESS: If I recall where I read this</p> <p>21 manuscript, this reference?</p> <p>22 BY MR. HEGARTY:</p> <p>23 Q. Yes, and when.</p> <p>24 A. No, I don't remember.</p> <p>25 Q. Were you -- strike that. You made references at that</p>	<p>1 Q. It's true, though, that whatever you found and reported</p> <p>2 in your article was under the conditions of your</p> <p>3 experiment, correct?</p> <p>4 MS. O'DELL: Object to the form.</p> <p>5 THE WITNESS: Can you --</p> <p>6 BY MR. HEGARTY:</p> <p>7 Q. Everything you describe in this manuscript occurred</p> <p>8 under the conditions of your experiments, correct?</p> <p>9 MS. O'DELL: Object to the form.</p> <p>10 THE WITNESS: So occurred means -- okay, so</p> <p>11 my response to this, all the experiments that has been</p> <p>12 performed here, they were performed according to the</p> <p>13 standard protocols that we have extensively published</p> <p>14 with.</p> <p>15 BY MR. HEGARTY:</p> <p>16 Q. The statement that you make there is based on the</p> <p>17 results of your cell studies, correct?</p> <p>18 A. My cell studies, yes.</p> <p>19 Q. It's not based on any data from in vivo studies,</p> <p>20 correct?</p> <p>21 MS. O'DELL: Objection, form.</p> <p>22 THE WITNESS: There is no need.</p> <p>23 BY MR. HEGARTY:</p> <p>24 Q. That's not my question. My question is those</p> <p>25 statements are not based on any in vivo data, correct?</p>

48 (Pages 186 to 189)

Ghassan Saed, Ph.D.

Page 190	Page 192
<p>1 MS. O'DELL: Object to the form.</p> <p>2 THE WITNESS: So those, again, those results,</p> <p>3 the result, no, this is -- this is what we have shown</p> <p>4 in this manuscript, that's not my opinion of the whole</p> <p>5 situation. So this -- the basis of the sentence is --</p> <p>6 came from the results, the experiments that we did that</p> <p>7 we described here.</p> <p>8 BY MR. HEGARTY:</p> <p>9 Q. Those results have not been shown in any in vivo</p> <p>10 situation, whether it's human or animal, correct?</p> <p>11 MS. O'DELL: Object to the form.</p> <p>12 THE WITNESS: Similar outcome have been shown</p> <p>13 in -- before, yes.</p> <p>14 BY MR. HEGARTY:</p> <p>15 Q. Well, cite for me the published articles reporting the</p> <p>16 same results that you got in an in vivo model.</p> <p>17 MS. O'DELL: Objection, form.</p> <p>18 THE WITNESS: There was no any in vivo</p> <p>19 studies done at the molecular level. This is -- my</p> <p>20 study was the first comprehensive study that actually</p> <p>21 does that.</p> <p>22 BY MR. HEGARTY:</p> <p>23 Q. What you found was in cell cultures.</p> <p>24 A. These are ovarian cancer cells from patients.</p> <p>25 Q. These are not ovarian cancer cells -- these are not</p>	<p>1 BY MR. HEGARTY:</p> <p>2 Q. What published literature reports finding the same</p> <p>3 things you report in this study in an animal model?</p> <p>4 A. Not the same things, similar things.</p> <p>5 Q. I'm asking --</p> <p>6 A. Same exact?</p> <p>7 Q. I'm asking can you cite for me any published literature</p> <p>8 reporting the same findings that you report in this</p> <p>9 article in an in vivo model?</p> <p>10 MS. O'DELL: Object to the form.</p> <p>11 THE WITNESS: Again, I repeat the same thing,</p> <p>12 I say I have seen work that has been done in vivo using</p> <p>13 animals, different type of animals, that show an</p> <p>14 association of talcum powder to increased risk of</p> <p>15 ovarian cancer. My work that has been done here in</p> <p>16 cell lines is not many laboratory have done this in</p> <p>17 ovarian cancer because this is our specialty, this is</p> <p>18 what we do. So we don't have -- part of it is done</p> <p>19 probably like oxidative stress as collective like, for</p> <p>20 example, some manuscripts, they measure hydrogen</p> <p>21 peroxide as a marker of oxidative stress, so for</p> <p>22 experts in oxidative stress, you need to do more than</p> <p>23 just that. So I have seen in animals where there are</p> <p>24 some biological effects in vivo.</p> <p>25</p>
Page 191	Page 193
<p>1 normal ovarian cancer cells, correct?</p> <p>2 A. Some are, yes.</p> <p>3 Q. Well, they've been immortalized, correct?</p> <p>4 A. The normal variance they have been immortalized.</p> <p>5 They're sold as such.</p> <p>6 Q. The data that you report in your manuscript has never</p> <p>7 been reported in an in vivo situation, correct?</p> <p>8 MS. O'DELL: Object to the form.</p> <p>9 THE WITNESS: So, again, using -- I have seen</p> <p>10 reports in vivo in animals that have shown the</p> <p>11 association of the talc with inflammation, yes.</p> <p>12 BY MR. HEGARTY:</p> <p>13 Q. I'm talking about the very results that you report in</p> <p>14 your study --</p> <p>15 A. I don't think anybody did them.</p> <p>16 MS. O'DELL: Let him finish.</p> <p>17 MR. HEGARTY: Let me finish the question.</p> <p>18 MS. O'DELL: Let me object.</p> <p>19 BY MR. HEGARTY:</p> <p>20 Q. You cannot cite to any published literature showing the</p> <p>21 same results that you found in your cell studies in any</p> <p>22 in vivo model, animal or human, correct?</p> <p>23 MS. O'DELL: Object to the form.</p> <p>24 THE WITNESS: I have seen in animals, yes.</p> <p>25</p>	<p>1 BY MR. HEGARTY:</p> <p>2 Q. I'm talking about the biological effects you report in</p> <p>3 your manuscript.</p> <p>4 A. Which include some of this.</p> <p>5 Q. What literature can you cite for me that has shown</p> <p>6 these same biological effects in an in vivo model?</p> <p>7 MS. O'DELL: Object to the form.</p> <p>8 BY MR. HEGARTY:</p> <p>9 Q. The same biological effects you report in your</p> <p>10 manuscript.</p> <p>11 MS. O'DELL: Object to the form, asked and</p> <p>12 answered.</p> <p>13 THE WITNESS: I guess I'm not understanding</p> <p>14 the question because, again, these are cell lines from</p> <p>15 ovarian cancer patients, and doing work with cell lines</p> <p>16 is the closest you can get to in vivo. If there is</p> <p>17 work that has been done to depict all the work I have</p> <p>18 done here, this is none, to my knowledge, but there are</p> <p>19 reports that clearly indicates an in vivo effect.</p> <p>20 BY MR. HEGARTY:</p> <p>21 Q. What reports are you referring to?</p> <p>22 A. Animal studies.</p> <p>23 Q. Cite for me the author or name of the animal studies</p> <p>24 you're referring to.</p> <p>25 MR. DONATH: Move to strike, nonresponsive.</p>

49 (Pages 190 to 193)

Ghassan Saed, Ph.D.

<p style="text-align: right;">Page 194</p> <p>1 THE WITNESS: So, yeah, I think I referenced</p> <p>2 some animal studies work here. Let's see. This is the</p> <p>3 manuscript? I'm trying to find references. Yes.</p> <p>4 Where is that paper? I can't remember this. I know</p> <p>5 it's in the report. Yeah, it's right here, sorry. I</p> <p>6 know I referenced it here.</p> <p>7 BY MR. HEGARTY:</p> <p>8 Q. How much more time do you need, Doctor?</p> <p>9 A. It's been a while, so I need to find out exactly where</p> <p>10 this is, but I know it's here. So it is some cited in</p> <p>11 reference 50, but that's not the author -- that's not</p> <p>12 the original reference, this is a cross-reference.</p> <p>13 Q. You said cited in 50?</p> <p>14 A. Number 50, but that's a cross-reference, if I recall</p> <p>15 correctly.</p> <p>16 Q. You need more time?</p> <p>17 A. I do. I'm trying to look for it.</p> <p>18 Q. Let's go off the record.</p> <p>19 THE VIDEOGRAPHER: Going off the record at</p> <p>20 2:57 p.m.</p> <p>21 (An off-the-record discussion was held.)</p> <p>22 THE VIDEOGRAPHER: Back on the record at 2:59</p> <p>23 p.m.</p> <p>24 BY MR. HEGARTY:</p> <p>25 Q. Doctor, when we went off the record momentarily you</p>	<p style="text-align: right;">Page 196</p> <p>1 rats and mice, not the ovaries, correct?</p> <p>2 A. No, it was summarize a review of everything, the actual</p> <p>3 study, yes.</p> <p>4 Q. The NTP didn't look at ovarian cancer, correct?</p> <p>5 A. I'm not sure. I read from that study that they have</p> <p>6 summary, summary, and somewhere there I read that there</p> <p>7 was in vivo association of the talcum powder use with</p> <p>8 ovarian cancer. So that's called reference reference.</p> <p>9 Q. Your report --</p> <p>10 A. May I add something? I also read it somewhere else, I</p> <p>11 cannot remember right now.</p> <p>12 Q. Your report in your manuscript say that you in your</p> <p>13 experiments found genotype switches at 72 hours; is</p> <p>14 that correct?</p> <p>15 A. Genotype switches, what are you referring to?</p> <p>16 MS. O'DELL: What page?</p> <p>17 BY MR. HEGARTY:</p> <p>18 Q. You report in your manuscript.</p> <p>19 A. Which particular --</p> <p>20 Q. Well, let me ask you about your manuscript. Did your</p> <p>21 manuscript report genotype switches at 72 hours?</p> <p>22 A. The effect of talcum 72 hours induced SNP in genetic</p> <p>23 mutations.</p> <p>24 Q. And do you claim that those genetic mutations occurred</p> <p>25 in all cells treated with talc, in your experiments?</p>
<p style="text-align: right;">Page 195</p> <p>1 were going through your references in your report to</p> <p>2 identify any in vivo animal models that you claim show</p> <p>3 the same results that you report in your manuscript.</p> <p>4 Can you cite for us the publications that you contend</p> <p>5 show the same results as your manuscript in an animal</p> <p>6 model?</p> <p>7 MS. O'DELL: Object to the form.</p> <p>8 You may answer.</p> <p>9 THE WITNESS: So I am responding that I read</p> <p>10 in some references and reviews that there was an in</p> <p>11 vivo animal studies that showed association of talcum</p> <p>12 powder use with increased risk of ovarian cancer in</p> <p>13 animal models, and the reference for that is in the NTP</p> <p>14 studies.</p> <p>15 BY MR. HEGARTY:</p> <p>16 Q. That study did not measure the pro-oxidant and</p> <p>17 anti-oxidant markers that you measure in your study,</p> <p>18 correct?</p> <p>19 A. They talk about oxidative stress in general,</p> <p>20 inflammation in general.</p> <p>21 Q. But they don't -- that study doesn't measure the</p> <p>22 pro-oxidant or anti-oxidant markers that you report in</p> <p>23 your study, correct?</p> <p>24 A. That study, no.</p> <p>25 Q. The NTP study concerned findings in the lungs of the</p>	<p style="text-align: right;">Page 197</p> <p>1 A. There is a table actually that summarize the results,</p> <p>2 and it doesn't show it with all markers, so we can</p> <p>3 refer to it, so if you look, for example --</p> <p>4 MS. O'DELL: What figure?</p> <p>5 THE WITNESS: The figure Table 2, if you look</p> <p>6 at GSR, GSR no effect, SOD3 no effect, catalase there</p> <p>7 is an effect in some cells, not others, you can see</p> <p>8 that A2780 has no effect, the talc treatment.</p> <p>9 BY MR. HEGARTY:</p> <p>10 Q. But with regard to the cells that it did have an</p> <p>11 effect, SKOV-3, for example, with regard to --</p> <p>12 A. SKOV with regard to catalase, for example, has no</p> <p>13 effect.</p> <p>14 Q. With regard to --</p> <p>15 A. TOV112 with catalase there is an effect.</p> <p>16 Q. And was that effect in all the cells tested with talc?</p> <p>17 MS. O'DELL: Object to the form.</p> <p>18 THE WITNESS: I don't understand your</p> <p>19 question.</p> <p>20 BY MR. HEGARTY:</p> <p>21 Q. Well, don't you -- do you contend that those genotype</p> <p>22 changes occurred in all cells treated with talc?</p> <p>23 A. I didn't say that.</p> <p>24 Q. Did that happen?</p> <p>25 A. No. What I'm saying is if you treat the cell line,</p>

Ghassan Saed, Ph.D.

<p style="text-align: right;">Page 198</p> <p>1 okay, TOV112, with talc for 72 hours, there will be an</p> <p>2 increase, an acquisition of this mutation. Now, you're</p> <p>3 asking if I determined whether all cells in that</p> <p>4 population got this mutation.</p> <p>5 Q. Correct.</p> <p>6 A. The answer is I don't know.</p> <p>7 Q. Are you able to determine the quantity of cells -- let</p> <p>8 me back up. How many cells are in the culture?</p> <p>9 A. Yeah, so this is DNA extracted from 1 million cells</p> <p>10 treated with 100 microgram per ml of talcum powder.</p> <p>11 Now, there is another way you can quantitate if we need</p> <p>12 to proceed further with this.</p> <p>13 Q. Are you able to estimate the volume of cells that this</p> <p>14 genotype switch occurred in?</p> <p>15 MS. O'DELL: Object to the form.</p> <p>16 THE WITNESS: The volume?</p> <p>17 BY MR. HEGARTY:</p> <p>18 Q. Yes, the number.</p> <p>19 MS. O'DELL: Object to form.</p> <p>20 THE WITNESS: I just said, no, we can't.</p> <p>21 This technique will tell you yes or no, doesn't tell</p> <p>22 you how much -- how many, sorry.</p> <p>23 BY MR. HEGARTY:</p> <p>24 Q. So would it tell you, yes, if it -- (coughing in</p> <p>25 room) -- only one of the 1 ml cells?</p>	<p style="text-align: right;">Page 200</p> <p>1 Q. What do you mean when you say induces significant</p> <p>2 changes? What does that mean, what does the word</p> <p>3 significant there mean?</p> <p>4 A. Got you. So this means marginal change, it's not --</p> <p>5 here the words does not imply statistically significant</p> <p>6 is that you're referring to, although the results were</p> <p>7 statistically significant, this is referring to the</p> <p>8 magnitude.</p> <p>9 Q. And how do you define -- how did you define the</p> <p>10 magnitude as significant?</p> <p>11 A. You don't, many readers assume significant is</p> <p>12 statistically significant.</p> <p>13 Q. Was the choice of the word significant a subjective</p> <p>14 word choice by you?</p> <p>15 A. I chose this word because it applies that there is a</p> <p>16 significant effect which I know it is.</p> <p>17 Q. And when you say significant effect, what do you mean?</p> <p>18 A. I mean both marginal and statistically significant.</p> <p>19 Q. What does it mean to have a marginal effect?</p> <p>20 A. Marked like, for example, it is not like 1 versus 1.35,</p> <p>21 it is 1 versus 3, that's mean marginal.</p> <p>22 Q. You say about the middle of that paragraph that in all</p> <p>23 talc treated cells, do you see where I'm reading?</p> <p>24 A. Yes.</p> <p>25 Q. There was a significant dose-dependent increase in</p>
<p style="text-align: right;">Page 199</p> <p>1 MS. O'DELL: Object to the form.</p> <p>2 THE WITNESS: Again, this is not</p> <p>3 quantitative. This will tell you if there is a</p> <p>4 mutation or there is no mutation.</p> <p>5 BY MR. HEGARTY:</p> <p>6 Q. Without regard to the number of cells the mutation</p> <p>7 occurred in?</p> <p>8 MS. O'DELL: Objection to the form.</p> <p>9 THE WITNESS: Okay. I will repeat myself</p> <p>10 again. This is -- this technique will tell you if</p> <p>11 there are population of cells that acquired this</p> <p>12 genotype.</p> <p>13 BY MR. HEGARTY:</p> <p>14 Q. Does it tell you the number of such a population?</p> <p>15 A. I just said no.</p> <p>16 Q. If you look at Page 2 of your abstract, I'm sorry, your</p> <p>17 manuscript, the abstract, looking at the Abstract</p> <p>18 Section, second line towards the end, you say here</p> <p>19 we've demonstrated that talc induces significant</p> <p>20 changes in key redox enzymes and enhances the</p> <p>21 pro-oxidant state in normal and EOC cells.</p> <p>22 A. Where are you reading? Sorry.</p> <p>23 Q. The second line, towards the end of the second line.</p> <p>24 A. Towards the end of the second line -- here, yes, I see</p> <p>25 it I see it.</p>	<p style="text-align: right;">Page 201</p> <p>1 pro-oxidants iNOS, nitrate/nitrite, and MPO with a</p> <p>2 concomitant decrease in anti-oxidants CAT, SOD, GSR,</p> <p>3 and GPX. Do you see where I'm reading?</p> <p>4 A. Yes.</p> <p>5 Q. What do you mean when you use the phrase significant</p> <p>6 there?</p> <p>7 A. It is indicated by the P value, so once you have the P</p> <p>8 value, that's -- indicates statistically significant.</p> <p>9 Q. And when you say an increase and a decrease as compared</p> <p>10 to what?</p> <p>11 A. To untreated. It says all talc treated cells.</p> <p>12 Q. There is no data that correlates your findings and your</p> <p>13 experiments to ovarian cancer risk in humans, correct?</p> <p>14 MS. O'DELL: Objection, form.</p> <p>15 THE WITNESS: One more time, please.</p> <p>16 BY MR. HEGARTY:</p> <p>17 Q. Sure. There is no data that correlates your findings</p> <p>18 in this manuscript to ovarian cancer risk in women,</p> <p>19 correct?</p> <p>20 MS. O'DELL: Objection to form.</p> <p>21 THE WITNESS: So my data explain, explain and</p> <p>22 actually classify and characterize epithelial ovarian</p> <p>23 cancer cells to have a pro-oxidant state, and we were</p> <p>24 the first lab to actually demonstrate that epithelial</p> <p>25 ovarian cancer cells manifest a pro-oxidant state by</p>

Ghassan Saed, Ph.D.

Page 202	Page 204
<p>1 increasing in these pro-oxidants that we have here and</p> <p>2 decreasing the anti-oxidant that we studied. So this</p> <p>3 is a -- I have written a review article about this, I</p> <p>4 have written a book chapter about this, this is the</p> <p>5 major focus of my lab is to characterize the ovarian</p> <p>6 cancer cells as a pro-oxidant, that they manifest a</p> <p>7 pro-oxidant state and we characterize it.</p> <p>8 BY MR. HEGARTY:</p> <p>9 Q. There is no data showing that these increases or</p> <p>10 decreases increase the risk of ovarian cancer in women,</p> <p>11 correct?</p> <p>12 MS. O'DELL: Objection to form.</p> <p>13 THE WITNESS: Okay, so there are data that --</p> <p>14 recent data that showing, for example, I'll give you an</p> <p>15 example, myeloperoxidase is a marker of inflammation.</p> <p>16 My lab was the first lab in the entire world to report</p> <p>17 that myeloperoxidase is expressed by epithelial ovarian</p> <p>18 cancer cells, although this marker is only supposed to</p> <p>19 be a myeloid marker, which is a blood marker, a blood</p> <p>20 cells marker, not a nonmyeloid. Several reports later</p> <p>21 they confirm my finding, and not only that, other labs</p> <p>22 have just -- they reported that the SNP that we use</p> <p>23 here, it is correlated with increased risk of ovarian</p> <p>24 cancer, that's reported. That's number one.</p> <p>25 Another example, SOD, catalase, those two</p>	<p>1 BY MR. HEGARTY:</p> <p>2 Q. And that's been recognized to be associated in a genome</p> <p>3 wide significantly way?</p> <p>4 MS. O'DELL: Object to the form.</p> <p>5 THE WITNESS: I don't know what you mean by</p> <p>6 genome wide.</p> <p>7 BY MR. HEGARTY:</p> <p>8 Q. Well, you're familiar with what the --</p> <p>9 A. SNP is --</p> <p>10 Q. -- GWAS --</p> <p>11 A. Yes.</p> <p>12 Q. -- the GWAS study is, correct? Are you familiar with</p> <p>13 that?</p> <p>14 MS. O'DELL: Would you repeat the question?</p> <p>15 I couldn't hear it.</p> <p>16 BY MR. HEGARTY:</p> <p>17 Q. I asked him if he's familiar with what GWAS is.</p> <p>18 A. Yes.</p> <p>19 Q. What is it?</p> <p>20 A. It's the genome wide association where they list all</p> <p>21 the SNPs and their frequency of occurrence and their</p> <p>22 what they call it -- frequency of occurrence in general</p> <p>23 population.</p> <p>24 Q. And what SNPs in your manuscript have been associated</p> <p>25 by the GWAS studies with ovarian cancer?</p>
Page 203	Page 205
<p>1 enzymes and one more -- okay, but for those two, I know</p> <p>2 for a fact that their SNPs has also been reported to be</p> <p>3 associated with increased risk of ovarian cancer in</p> <p>4 human, so that's for the genotype.</p> <p>5 For the markers, there are several studies in</p> <p>6 the literature that talk about alteration of oxidative</p> <p>7 stress and inflammation in ovarian cancer. Our lab,</p> <p>8 other labs have published, repeatedly published this,</p> <p>9 so this is, as far as I'm concerned, this is a fact for</p> <p>10 me, we have documented this, others documented this,</p> <p>11 and to confirm my work with a report from a different</p> <p>12 lab saying there is this myeloperoxidase SNP minus</p> <p>13 463AA correlates with increased risk of ovarian cancer,</p> <p>14 and we have this to be the genotype that changes in</p> <p>15 talc powder, that's incredible to me.</p> <p>16 BY MR. HEGARTY:</p> <p>17 Q. Identify the SNPs that you report in your manuscript</p> <p>18 that have been shown to have reached genome wide</p> <p>19 significance of association with ovarian cancer.</p> <p>20 A. Risk.</p> <p>21 MS. O'DELL: Object to form.</p> <p>22 THE WITNESS: Risk, so the minus, the same</p> <p>23 SNP that we use here, minus 63, 463, which is the MPO</p> <p>24 SNP, this SNP is recognized to be associated with</p> <p>25 increased risk of ovarian cancer in a human.</p>	<p>1 A. So this, okay, we're mixing up two things. I need to</p> <p>2 clarify this. So the GWAS, they identify the SNP.</p> <p>3 Then investigators after the SNP has been identified by</p> <p>4 the GWAS, they pick that SNP and they say, hmm, there's</p> <p>5 a lab that published that myeloperoxidase in ovarian --</p> <p>6 in epithelial ovarian cancer where it's not supposed to</p> <p>7 be there, well, let's do this study where we see if</p> <p>8 this SNP is indeed associated with increased risk of</p> <p>9 ovarian cancer. So that's not part of the GWAS study.</p> <p>10 They use the GWAS study information like I did it.</p> <p>11 Q. That's not my question, Doctor. My question is which</p> <p>12 of the SNPs that you report in your manuscript have</p> <p>13 been shown to be associated with ovarian cancer by the</p> <p>14 GWAS studies?</p> <p>15 MS. O'DELL: Objection to form.</p> <p>16 THE WITNESS: I just said what I have to say.</p> <p>17 BY MR. HEGARTY:</p> <p>18 Q. Well, none of the SNPs that you referred to in your</p> <p>19 manuscript have been identified by the GWAS studies as</p> <p>20 being associated with ovarian cancer risk, correct?</p> <p>21 MS. O'DELL: Object to the form.</p> <p>22 THE WITNESS: No, it's not correct because I</p> <p>23 repeat again, the GWAS have no responsibility to tell</p> <p>24 you, they don't do studies looking at association.</p> <p>25 They just list SNP and prevalence in general</p>

Ghassan Saed, Ph.D.

Page 206	Page 208
<p>1 population, very clear.</p> <p>2 BY MR. HEGARTY:</p> <p>3 Q. So it's your contention that the GWAS, the genome wide</p> <p>4 significance of association doesn't list SNPs that are</p> <p>5 associated with ovarian cancer?</p> <p>6 MS. O'DELL: Object to the form.</p> <p>7 THE WITNESS: What I'm saying is, to my</p> <p>8 understanding, GWAS is an information bank where you go</p> <p>9 and you say, okay, there is -- there exists a catalase</p> <p>10 SNP, which is this SNP, this specific sequence that is</p> <p>11 present in .01 percent of general population. Above</p> <p>12 that will be characterized as risk factor. So now in</p> <p>13 the GWAS they identified the MPO SNP, the catalase SNP,</p> <p>14 the SOD SNP, all SNPs that it's like an information</p> <p>15 bank where you go to to find your information and then</p> <p>16 you go and study them. I study them, others study</p> <p>17 them, different labs can study them, but they do it for</p> <p>18 us. It's like the gene sequencing bank, it's the same</p> <p>19 thing, same concept, protein sequence bank. I don't</p> <p>20 need necessarily to go and sequence the whole thing to</p> <p>21 understand, it's already sequenced for me.</p> <p>22 BY MR. HEGARTY:</p> <p>23 Q. What does it mean for a SNP to reach genome wide</p> <p>24 significance?</p> <p>25 A. So there is a cutoff that they have in their website to</p>	<p>1 you reference in your manuscript and ovarian cancer.</p> <p>2 MS. O'DELL: Object to the form.</p> <p>3 THE WITNESS: So I'm not -- I am objecting to</p> <p>4 the word statistically significant, but I can identify</p> <p>5 several studies that, for example, looking at catalase</p> <p>6 SNP and its association with increased risk of ovarian</p> <p>7 cancer, myeloperoxidase SNP and its association with</p> <p>8 increased risk of ovarian cancer, there was one more</p> <p>9 I'm skipping, and so those two were definitely there.</p> <p>10 BY MR. HEGARTY:</p> <p>11 Q. Why do you object to my use of the phrase statistical</p> <p>12 significance?</p> <p>13 A. Because I am not sure if they did -- they did molecular</p> <p>14 study or they did a different type of study, so I'm</p> <p>15 just, you know, not familiar with the epidemiological</p> <p>16 studies that they performed.</p> <p>17 Q. Well, cite for me any studies that show, as you say, an</p> <p>18 association between MPO or CAT and ovarian cancer.</p> <p>19 MS. O'DELL: Object to the form.</p> <p>20 THE WITNESS: MPO?</p> <p>21 BY MR. HEGARTY:</p> <p>22 Q. Yes.</p> <p>23 A. The MPO SNP?</p> <p>24 Q. Yes.</p> <p>25 A. That's what we're talking about?</p>
Page 207	Page 209
<p>1 each based on epidemiological studies that there is</p> <p>2 association, if it increased over this level, it could</p> <p>3 be associated with diseases.</p> <p>4 Q. Which of the SNPs that you reference in your manuscript</p> <p>5 have been associated with ovarian cancer, in other</p> <p>6 words, which have reached genome wide significance?</p> <p>7 MS. O'DELL: Object to the form.</p> <p>8 THE WITNESS: I can answer this. I know for</p> <p>9 a fact it's catalase, not only ovarian but also in</p> <p>10 breast cancer, and they are twins.</p> <p>11 BY MR. HEGARTY:</p> <p>12 Q. Any others?</p> <p>13 A. I'm not -- I can't remember the actual -- for me, the</p> <p>14 GWAS was an information bank where I get my -- the</p> <p>15 information I need to perform the studies, like me and</p> <p>16 others in the same situation.</p> <p>17 Q. Cite for me any published literature that is</p> <p>18 associated -- that has shown a clinical significant</p> <p>19 association between the SNPs that you reference in your</p> <p>20 paper and ovarian cancer.</p> <p>21 A. I'm sorry, one more time.</p> <p>22 MS. O'DELL: Object to the form.</p> <p>23 BY MR. HEGARTY:</p> <p>24 Q. Identify for me any published literature that shows a</p> <p>25 statistically significant association between the SNPs</p>	<p>1 Q. Yes.</p> <p>2 A. Yes, I can cite.</p> <p>3 Q. Cite for me a study.</p> <p>4 A. I don't remember it now, but there is study.</p> <p>5 Q. Did you cite it in your manuscript?</p> <p>6 A. I believe so. Let's talk -- let's see about where we</p> <p>7 talk about SNP. Okay, were the first to do this --</p> <p>8 sorry -- I would be very happy to provide you with</p> <p>9 these references that I mentioned, MPO and catalase and</p> <p>10 the SNP in ovarian cancer.</p> <p>11 Q. Can you cite for me here today any studies associating</p> <p>12 catalase or MPO with ovarian cancer?</p> <p>13 MS. O'DELL: Object to the form. You mean</p> <p>14 the SNP?</p> <p>15 THE WITNESS: I can't remember where I put</p> <p>16 it.</p> <p>17 BY MR. HEGARTY:</p> <p>18 Q. How much time do you need to look, Doctor?</p> <p>19 A. See, I write this every day so I get so overwhelmed.</p> <p>20 Q. Let's go off the record.</p> <p>21 A. So we're looking for catalase SNP for --</p> <p>22 MS. O'DELL: Stay on, if you're -- do you</p> <p>23 need more time, Doctor, or are you --</p> <p>24 THE WITNESS: I'm trying to find it in my --</p> <p>25 MR. HEGARTY: Let's go off the record.</p>

53 (Pages 206 to 209)

Ghassan Saed, Ph.D.

Page 210	Page 212
<p>1 THE WITNESS: I mean I may not even reference</p> <p>2 it here so I don't know.</p> <p>3 THE VIDEOGRAPHER: Going off the record at</p> <p>4 3:23 p.m.</p> <p>5 (An off-the-record discussion was held.)</p> <p>6 THE VIDEOGRAPHER: We're back on the record</p> <p>7 at 3:26 p.m.</p> <p>8 BY MR. HEGARTY:</p> <p>9 Q. Doctor, when we went off the record I asked you for any</p> <p>10 studies associating catalase or MPO with ovarian</p> <p>11 cancer. You've had a chance to look for such studies,</p> <p>12 and what is your response?</p> <p>13 A. So there's one study by Olson, et al., that was</p> <p>14 published in Gynecology Oncology 2004.</p> <p>15 Q. How do you spell his first name?</p> <p>16 A. O-l-s-o-n, and it's looking at SOD and MPO SNP. There</p> <p>17 is an increased risk of ovarian cancer. I couldn't</p> <p>18 find the catalase one, but it is there, I can search</p> <p>19 for it, it is hundred percent there. There is another</p> <p>20 one looking at Superoxide dismutase published in JBC</p> <p>21 Journal by Yumin, et al.</p> <p>22 Q. How do you spell that?</p> <p>23 A. Y-u-m-i-m, Hu, H-u. And there is one more which is</p> <p>24 about catalase if you -- SNP.</p> <p>25 Q. What is the date of the Yumin article?</p>	<p>1 am -- if you define lead author as corresponding author</p> <p>2 or first author?</p> <p>3 Q. First author.</p> <p>4 A. Is Dr. Belotte, he was an M.D., Ph.D. trained in my</p> <p>5 laboratory. I was his Ph.D. advisor.</p> <p>6 Q. What year? What is the year of the article?</p> <p>7 A. Oh, sorry, 2015.</p> <p>8 Q. What is the name of the article?</p> <p>9 A. Single Nucleotide Polymorphism in Catalase is Strongly</p> <p>10 Associated With Ovarian Cancer Survival.</p> <p>11 Q. So that article doesn't have anything to do with</p> <p>12 ovarian cancer initiation, correct?</p> <p>13 MS. O'DELL: Object to the form.</p> <p>14 THE WITNESS: Is that another question?</p> <p>15 BY MR. HEGARTY:</p> <p>16 Q. Yes.</p> <p>17 A. Saying --</p> <p>18 Q. In that article, it associated catalase with ovarian</p> <p>19 cancer survival, correct?</p> <p>20 A. Uh-huh.</p> <p>21 Q. It didn't associate catalase with causing ovarian</p> <p>22 cancer, correct?</p> <p>23 MS. O'DELL: Object to the form.</p> <p>24 THE WITNESS: So in this article what we did,</p> <p>25 we actually, this is -- we identified the SNP and</p>
Page 211	Page 213
<p>1 A. What's the data?</p> <p>2 Q. What's the date?</p> <p>3 A. Oh, the date, I'm sorry. Can I look?</p> <p>4 Q. Yes.</p> <p>5 A. So the date was 2005.</p> <p>6 Q. And then you believe there's an article that associates</p> <p>7 catalase to ovarian cancer?</p> <p>8 A. Yes.</p> <p>9 Q. You can't recall that article sitting here today?</p> <p>10 A. I have it here, it's Catalase Nucleotide SNP Strongly</p> <p>11 Associated With Ovarian Cancer, this is by -- from our</p> <p>12 lab and from another lab, also.</p> <p>13 Q. What is the -- who is the first author?</p> <p>14 A. From my lab?</p> <p>15 Q. Well, you said --</p> <p>16 A. This second one, the second one is by -- so this is our</p> <p>17 paper, and there's one here.</p> <p>18 Q. When you say our paper, who's the lead author?</p> <p>19 A. Okay. Can I just tell you the paper? So this is</p> <p>20 published in -- it says The Effect of Catalase SNP and</p> <p>21 Susceptibility to Ovarian Cancer, and this is by --</p> <p>22 published in -- doesn't -- it's in 2017, and it doesn't</p> <p>23 tell me the journal, Journal of Obstetrics and</p> <p>24 Gynecology, Volume 38, 2018, Issue 4.</p> <p>25 And going back to your previous question, I</p>	<p>1 catalase that others also identified, and we looked at</p> <p>2 the presence of the SNP in chemoresistance versus</p> <p>3 sensitive looking at different parameters, and we</p> <p>4 actually reversed the SNP using the CRISPR editing,</p> <p>5 gene editing, and we induced apoptosis, so there was</p> <p>6 like a survival mechanism.</p> <p>7 BY MR. HEGARTY:</p> <p>8 Q. Doctor, the article you actually cite and which you</p> <p>9 included as an author found that with regard to the</p> <p>10 seven selected SNP study, no association -- you found</p> <p>11 no association with ovarian cancer risk, correct?</p> <p>12 MS. O'DELL: Object to the form.</p> <p>13 THE WITNESS: Which article you talking</p> <p>14 about?</p> <p>15 BY MR. HEGARTY:</p> <p>16 Q. The article with the lead author Belotte, Belotte.</p> <p>17 A. Jimmy Belotte, okay, what about it?</p> <p>18 Q. Your article looked at CAT, CYBA, GPX1, GSR, MnSOD,</p> <p>19 MPO, and NOS2, correct?</p> <p>20 A. Yes.</p> <p>21 Q. You found doing the same kind of testing you did here</p> <p>22 that none of those SNPs was associated with ovarian</p> <p>23 cancer risk, correct?</p> <p>24 MS. O'DELL: Object to the form.</p> <p>25 THE WITNESS: No.</p>

Ghassan Saed, Ph.D.

Page 214	Page 216
<p>1 MS. O'DELL: Excuse me. Object to the form.</p> <p>2 If you need to see the paper --</p> <p>3 THE WITNESS: Yeah, it's been a while but --</p> <p>4 MS. O'DELL: If you need to see the paper.</p> <p>5 SAED DEPOSITION EXHIBIT NUMBER 17,</p> <p>6 RESEARCH ARTICLE,</p> <p>7 WAS MARKED BY THE REPORTER</p> <p>8 FOR IDENTIFICATION</p> <p>9 BY MR. HEGARTY:</p> <p>10 Q. I marked as Exhibit 17 the paper.</p> <p>11 A. Very good.</p> <p>12 Q. Show me in that paper where you found an association</p> <p>13 with the listed SNPs and ovarian cancer risk.</p> <p>14 A. Okay. So there is no -- this study we looked at, this</p> <p>15 particular SNP and catalase that we found, the other we</p> <p>16 found that they are not associated with survival, so</p> <p>17 this study was basically looking at survival of ovarian</p> <p>18 cancer. So this is not a study meant to study risk.</p> <p>19 MR. KLATT: Objection, nonresponsive.</p> <p>20 BY MR. HEGARTY:</p> <p>21 Q. If you look over at Page 11 of your manuscript.</p> <p>22 MS. O'DELL: Which page --</p> <p>23 MR. HEGARTY: It's Exhibit 7.</p> <p>24 MS. O'DELL: Well, he just has one manuscript</p> <p>25 in his hand. Do you know where we are, Doctor?</p>	<p>1 that it? And it's also in your notebook at 34 if you</p> <p>2 both need it so.</p> <p>3 THE WITNESS: Can I look at it?</p> <p>4 BY MR. HEGARTY:</p> <p>5 Q. Yes, go ahead and look at 34.</p> <p>6 A. I can't remember if we did the same SNP in both</p> <p>7 studies, so I just want to make sure that we did that,</p> <p>8 because there are several SNPs for the same enzyme</p> <p>9 reported in the GWAS.</p> <p>10 Q. How long will it take you to look at -- you did the</p> <p>11 same SNPs in the Belotte article as you did here?</p> <p>12 A. I have to look at the accession numbers and compare</p> <p>13 them.</p> <p>14 Q. Well, we'll maybe get to that, but my question goes</p> <p>15 back to your reference on Page --</p> <p>16 MS. O'DELL: 34.</p> <p>17 MR. HEGARTY: Your reference to that article</p> <p>18 on Page 11 of your manuscript, you quote that article</p> <p>19 as saying that you examined several selected known gene</p> <p>20 mutations corresponding to SNPs known to be associated</p> <p>21 with altered enzyme activity and increased cancer risk.</p> <p>22 What part of that Belotte article shows that the SNPs</p> <p>23 that you examined are associated with increased cancer</p> <p>24 risk?</p> <p>25 THE WITNESS: So if you look at the table,</p>
Page 215	Page 217
<p>1 THE WITNESS: Page 11 --</p> <p>2 BY MR. HEGARTY:</p> <p>3 Q. Yes, Page 11. The first sentence of the third</p> <p>4 paragraph beginning To Elucidate the Mechanism, do you</p> <p>5 see that?</p> <p>6 A. Yes.</p> <p>7 Q. You state later in that sentence, we have examined</p> <p>8 selected known gene mutations corresponding to SNPs</p> <p>9 known to be associated with altered enzymatic activity</p> <p>10 and increased cancer risk. Do you see where I'm</p> <p>11 reading?</p> <p>12 A. To elucidate the mechanism, that paragraph?</p> <p>13 Q. Yes.</p> <p>14 A. Okay.</p> <p>15 Q. And at the end of that sentence you cite Reference 28.</p> <p>16 A. Okay.</p> <p>17 Q. And Reference 28 is that Belotte article, correct?</p> <p>18 A. 28 is Belotte, yes.</p> <p>19 Q. Can you hand me the Belotte article back, please.</p> <p>20 A. (Witness complied.)</p> <p>21 Q. In the Belotte article you say of the seven selected</p> <p>22 SNPs studied, no association with ovarian cancer risk</p> <p>23 was found. That's what you found, correct, Doctor?</p> <p>24 MS. O'DELL: Objection to form. If you need</p> <p>25 to see Belotte -- do you have another copy, Mike, or is</p>	<p>1 Page 3, Dr. Belotte's article, there is a table here</p> <p>2 that lists what is the SNP, what is the mean allele</p> <p>3 frequency occurrence, the chromosomal equation, and if</p> <p>4 it is known nucleotide switch, and the effect of</p> <p>5 activity. So there are SNPs that affect activity of</p> <p>6 the enzymes, and if they do, they are, according to our</p> <p>7 findings, they are associated with anything that alters</p> <p>8 oxidative stress to the pro-oxidant state can</p> <p>9 contribute to increased risk.</p> <p>10 BY MR. HEGARTY:</p> <p>11 Q. But you in your paper, Exhibit 17, say that the SNPs</p> <p>12 you studied showed no association with ovarian cancer</p> <p>13 risk, correct?</p> <p>14 A. Which one?</p> <p>15 Q. The Belotte paper.</p> <p>16 A. Oh, keep saying what paper.</p> <p>17 Q. You look at the abstract.</p> <p>18 A. So, again, we're looking at specific SNPs.</p> <p>19 Q. Correct.</p> <p>20 A. Right, so --</p> <p>21 Q. And in the specific --</p> <p>22 A. Some of the SNPs that we looked at when we did this</p> <p>23 study, they were associated with survival of ovarian</p> <p>24 cancer, that's what we tested.</p> <p>25 Q. None of the SNPs --</p>

Ghassan Saed, Ph.D.

Page 218	Page 220
<p>1 MR. KLATT: Nonresponsive.</p> <p>2 BY MR. HEGARTY:</p> <p>3 Q. Doctor, you also examined whether the SNPs reported in</p> <p>4 this study were associated with ovarian cancer risk,</p> <p>5 correct, not just survival?</p> <p>6 MS. O'DELL: Objection, form.</p> <p>7 THE WITNESS: Give me a moment to see, to</p> <p>8 refresh my memory. This is 2015, so I need to remember</p> <p>9 what we did. I have done many work.</p> <p>10 BY MR. HEGARTY:</p> <p>11 Q. How much time do you need to study that article?</p> <p>12 A. Just -- okay, so in this study we only did survival,</p> <p>13 the Jimmy Belotte study, this is my -- yeah, so this</p> <p>14 here we only did analysis of survival.</p> <p>15 Q. Doctor, if you turn over to Page 6 of that article at</p> <p>16 the very bottom, third from -- third line from the</p> <p>17 bottom, you write that currently we demonstrated that</p> <p>18 there is no association between the selected SNPs and</p> <p>19 risk of developing ovarian cancer, citing Table 2,</p> <p>20 those are your words, correct?</p> <p>21 A. Yeah, Table 2 is, let's see --</p> <p>22 MS. O'DELL: What were you reading?</p> <p>23 MR. HEGARTY: The bottom of Page 6 of 12.</p> <p>24 THE WITNESS: Yeah, I see that.</p> <p>25</p>	<p>1 with it.</p> <p>2 MS. O'DELL: It is not.</p> <p>3 MR. KLATT: He's perfectly entitled to look</p> <p>4 things up to answer them, but it doesn't count against</p> <p>5 our time.</p> <p>6 MS. O'DELL: He's not looking things up.</p> <p>7 He's looking at the exhibit that had been placed before</p> <p>8 him.</p> <p>9 THE COURT REPORTER: Excuse me --</p> <p>10 (Simultaneous crosstalk.)</p> <p>11 MS. O'DELL: We are on the record.</p> <p>12 And, Doctor, if you are prepared to respond</p> <p>13 to the question, you may do so. If you need a minute,</p> <p>14 let us know that.</p> <p>15 BY MR. HEGARTY:</p> <p>16 Q. How much time do you need to review the article,</p> <p>17 Doctor?</p> <p>18 A. I'm just asking you, please, where do you see in Table</p> <p>19 2.</p> <p>20 Q. I'm referring to your words at the bottom of Page 6</p> <p>21 that's referring over to Table 2, and I'm asking you is</p> <p>22 it your testimony that you did not investigate the</p> <p>23 association in this paper between these SNPs and</p> <p>24 ovarian cancer risk, is that your testimony?</p> <p>25 MS. O'DELL: Are you quoting a sentence?</p>
Page 219	Page 221
<p>1 BY MR. HEGARTY:</p> <p>2 Q. Doctor, is it your testimony that in this study you did</p> <p>3 not investigate whether the SNPs listed in Table 2 were</p> <p>4 associated with ovarian cancer risk?</p> <p>5 MS. O'DELL: Object to the form.</p> <p>6 THE WITNESS: Let me just look at this,</p> <p>7 sorry.</p> <p>8 MR. HEGARTY: Let's go off the record.</p> <p>9 MS. O'DELL: He's just looking at the table.</p> <p>10 Ask him a question, he's entitled --</p> <p>11 MR. HEGARTY: Let's go off the record.</p> <p>12 MS. O'DELL: No, we're not.</p> <p>13 MR. HEGARTY: We're going off the record.</p> <p>14 MS. O'DELL: No, we're not.</p> <p>15 MR. KLATT: We're going to call Judge Pisano.</p> <p>16 MS. O'DELL: Wait a minute. Let me speak.</p> <p>17 If you ask the doctor about his manuscript, he is not</p> <p>18 required to have put to memory every word and table in</p> <p>19 the manuscript. If you ask him about something, he is</p> <p>20 entitled to look at it and reply completely. And to</p> <p>21 somehow suggest if he takes more than 15 seconds we're</p> <p>22 going off the record, that's ridiculous.</p> <p>23 MR. KLATT: It's every single time he's asked</p> <p>24 a question, he wants to look something up. This is</p> <p>25 slow walking the deposition, we're not going to put up</p>	<p>1 What sentence are you referring to?</p> <p>2 MR. HEGARTY: I'm not -- you're not taking</p> <p>3 this deposition of me. I'll let my question stand.</p> <p>4 MS. O'DELL: Object to the form of the</p> <p>5 question, it's unclear. If there's a specific sentence</p> <p>6 you're referring to in the manuscript, you said bottom</p> <p>7 of Page 6, so if there's something you're referring to,</p> <p>8 I'd ask you direct the witness to it.</p> <p>9 BY MR. HEGARTY:</p> <p>10 Q. Can you answer my question, Doctor?</p> <p>11 MS. O'DELL: Object to the form.</p> <p>12 THE WITNESS: Where is the -- can you</p> <p>13 please --</p> <p>14 BY MR. HEGARTY:</p> <p>15 Q. Bottom of Page 6 for the second time.</p> <p>16 A. Yes.</p> <p>17 Q. I'm reading this to you, it says currently we</p> <p>18 demonstrated that there is no association between the</p> <p>19 selected SNPs and risk of developing ovarian cancer,</p> <p>20 Table 2. Do you see that?</p> <p>21 A. Yes.</p> <p>22 Q. Is it your testimony that this article did not</p> <p>23 investigate an association between the selected SNPs</p> <p>24 and ovarian cancer risk?</p> <p>25 A. In this study that we did with this number of people</p>

56 (Pages 218 to 221)

Ghassan Saed, Ph.D.

<p style="text-align: right;">Page 222</p> <p>1 that we looked at, we found, okay, that the only</p> <p>2 catalase SNP is associated with ovarian cancer</p> <p>3 survival, none of the other SNPs were associated from</p> <p>4 these patients to increased risk of ovarian cancer.</p> <p>5 Q. Right.</p> <p>6 A. We only did 143, I believe, 94.</p> <p>7 Q. So the sentence that I read to you on Page 11 of your</p> <p>8 manuscript it's citation 28 is wrong, correct?</p> <p>9 MS. O'DELL: Objection to form.</p> <p>10 THE WITNESS: What's the citation?</p> <p>11 BY MR. HEGARTY:</p> <p>12 Q. Well, you support the sentence that says we have</p> <p>13 examined selected known gene mutations corresponding to</p> <p>14 SNPs known to be associated with altered enzymatic</p> <p>15 activity and increased ovarian cancer risk citing 28.</p> <p>16 28 doesn't support a finding that the SNPs you tested</p> <p>17 show increased ovarian cancer risk, correct?</p> <p>18 MS. O'DELL: Object to the form.</p> <p>19 THE WITNESS: What we -- again, this --</p> <p>20 what -- the SNPs that we are used here in this study,</p> <p>21 they were used in response to test the effect of talc</p> <p>22 treatment, talcum powder treatment to the genetic -- to</p> <p>23 the specific genetic mutations. Now, we link survival</p> <p>24 to risk, so, for example, if you look, most of our</p> <p>25 hypothesis --</p>	<p style="text-align: right;">Page 224</p> <p>1 answer it again.</p> <p>2 MS. O'DELL: You can go ahead and finish.</p> <p>3 Stop interrupting.</p> <p>4 THE COURT REPORTER: I cannot take</p> <p>5 everybody --</p> <p>6 MS. O'DELL: Here's my objection. The</p> <p>7 witness is being interrupted while he's trying to</p> <p>8 respond to the question, and so if there's a question</p> <p>9 pending the doctor is trying to answer, you cannot</p> <p>10 interrupt him.</p> <p>11 MR. HEGARTY: Well, the record's going to</p> <p>12 speak for itself as far as his nonresponsiveness to my</p> <p>13 question.</p> <p>14 MS. O'DELL: Were you finished with your</p> <p>15 answer?</p> <p>16 MR. HEGARTY: I withdrew the question.</p> <p>17 MS. O'DELL: Were you finished with your</p> <p>18 answer?</p> <p>19 THE WITNESS: So what I'm trying to tell you,</p> <p>20 I cannot remember that we did the same exact SNP in</p> <p>21 Jimmy Belotte study and this study.</p> <p>22 BY MR. HEGARTY:</p> <p>23 Q. That was not my question. My question is specific to</p> <p>24 this study.</p> <p>25 A. To the Jimmy Belotte study.</p>
<p style="text-align: right;">Page 223</p> <p>1 BY MR. HEGARTY:</p> <p>2 Q. I object to it's nonresponsive. Doctor, you're not</p> <p>3 answering my question. I'm going to withdraw the</p> <p>4 question.</p> <p>5 MS. O'DELL: Don't cut him off if he's</p> <p>6 finishing --</p> <p>7 MR. HEGARTY: He's not finishing, he's</p> <p>8 answering something else.</p> <p>9 MS. O'DELL: He's trying to answer your</p> <p>10 question.</p> <p>11 MR. HEGARTY: I withdrew the question.</p> <p>12 Listen to my question, Doctor. Does the</p> <p>13 Belotte paper show that the SNPs you looked at are</p> <p>14 associated with increased cancer risk?</p> <p>15 THE WITNESS: Ovarian cancer risk.</p> <p>16 BY MR. HEGARTY:</p> <p>17 Q. Ovarian cancer risk.</p> <p>18 A. So what I'm trying to tell you, according to this</p> <p>19 paper, we only tested limited number of patients.</p> <p>20 Q. Listen to my question.</p> <p>21 A. And I'm not sure, I'm answering, trying to answer.</p> <p>22 Q. You're not answering the question. I'm going to</p> <p>23 withdraw the question.</p> <p>24 A. Can I finish?</p> <p>25 Q. I'm going to withdraw the question. I'm going to</p>	<p style="text-align: right;">Page 225</p> <p>1 Q. Correct.</p> <p>2 A. Yes.</p> <p>3 Q. And reading from your study in the abstract, starting</p> <p>4 on the third line it says we sought to evaluate the</p> <p>5 association of SNPs in key oxidant and anti-oxidant</p> <p>6 enzymes with increased risk in survival in epithelial</p> <p>7 ovarian cancer. So you agree in this study that you</p> <p>8 looked at certain specific SNPs with regard to</p> <p>9 increased risk of ovarian cancer, correct?</p> <p>10 A. Those SNPs, yes.</p> <p>11 Q. You found from your study that those SNPs were not</p> <p>12 associated with increased ovarian cancer risk, correct?</p> <p>13 A. Correct.</p> <p>14 MS. O'DELL: Object to the form.</p> <p>15 THE WITNESS: Correct.</p> <p>16 BY MR. HEGARTY:</p> <p>17 Q. Can you cite for me any study that has shown the SNPs</p> <p>18 you report, you discuss in your manuscript to occur in</p> <p>19 women using talc?</p> <p>20 MS. O'DELL: Object to the form.</p> <p>21 THE WITNESS: That the SNP that we used in</p> <p>22 this study --</p> <p>23 BY MR. HEGARTY:</p> <p>24 Q. In the manuscript.</p> <p>25 A. In the manuscript, any of these SNPs has been</p>

57 (Pages 222 to 225)

Ghassan Saed, Ph.D.

<p style="text-align: right;">Page 226</p> <p>1 associated with woman using talc?</p> <p>2 Q. Correct.</p> <p>3 A. I don't know.</p> <p>4 Q. Can you report -- can you cite for me any studies</p> <p>5 showing the enzyme activity that you report to have</p> <p>6 occurred with application of talc use to be in women</p> <p>7 using talc?</p> <p>8 MS. O'DELL: Object to the form.</p> <p>9 THE WITNESS: So if other people have done</p> <p>10 the same work that I did with samples from woman who</p> <p>11 got ovarian cancer and they used talc?</p> <p>12 BY MR. HEGARTY:</p> <p>13 Q. Can you cite for me any study showing your findings as</p> <p>14 to decrease in the expression of anti-oxidant enzymes</p> <p>15 and the increased expression in pro-oxidant enzymes in</p> <p>16 women using talc?</p> <p>17 MS. O'DELL: Object to the form.</p> <p>18 THE WITNESS: I can cite to you several</p> <p>19 studies that have indicated the pro-oxidant state and</p> <p>20 the anti-oxidant state in several human, animal, in</p> <p>21 vitro studies of cells with ovarian cancer.</p> <p>22 BY MR. HEGARTY:</p> <p>23 Q. That's not my question. My question, Doctor, is can</p> <p>24 you cite for me any studies showing your findings as to</p> <p>25 decrease in the expression of anti-oxidants and the</p>	<p style="text-align: right;">Page 228</p> <p>1 THE WITNESS: So other than the similarities</p> <p>2 in the mechanism, direct link with woman who use</p> <p>3 specific talc on that day, I don't know.</p> <p>4 BY MR. HEGARTY:</p> <p>5 Q. Let's take a break.</p> <p>6 THE VIDEOGRAPHER: We're going off the record</p> <p>7 at 3:49 p.m.</p> <p>8 (A short recess was taken.)</p> <p>9 THE VIDEOGRAPHER: We're back on the record</p> <p>10 at 4:05 p.m.</p> <p>11 BY MR. HEGARTY:</p> <p>12 Q. Doctor, in looking at your manuscript again Page 13,</p> <p>13 I'm sorry, in looking at your report, sorry, Page 13,</p> <p>14 you describe the cell lines that you use for purposes</p> <p>15 of your experiments, is that correct?</p> <p>16 A. In the cell lines section?</p> <p>17 Q. Yes.</p> <p>18 A. Yes.</p> <p>19 Q. Which of those cell lines -- strike that. What sub</p> <p>20 type of ovarian cancer are these cells?</p> <p>21 A. Sorry. Unknown.</p> <p>22 Q. You don't know whether they're high grade, serous,</p> <p>23 endometrioid, mucinous, clear cell?</p> <p>24 MS. O'DELL: Object to the form.</p> <p>25 THE WITNESS: When we purchased these cell</p>
<p style="text-align: right;">Page 227</p> <p>1 increase expression of pro-oxidants in women using talc</p> <p>2 on their bodies?</p> <p>3 MS. O'DELL: Object to the form.</p> <p>4 THE WITNESS: I don't know.</p> <p>5 BY MR. HEGARTY:</p> <p>6 Q. Can you cite for me any study showing the results --</p> <p>7 showing any of the results in your manuscript to</p> <p>8 occur -- to have occurred in women applying talc to</p> <p>9 their bodies?</p> <p>10 MS. O'DELL: Object to the form.</p> <p>11 THE WITNESS: So let's go back. I have --</p> <p>12 this is important. Good question. My answer is</p> <p>13 simple. The fact that you -- that talc has been shown</p> <p>14 to elicit a molecular response, that is same response</p> <p>15 that you get in the pro-oxidant state that has been</p> <p>16 published by many people in ovarian cancer, that is, to</p> <p>17 my understanding, link talcum powder to increased risk</p> <p>18 of ovarian cancer.</p> <p>19 BY MR. HEGARTY:</p> <p>20 Q. Object as nonresponsive. Listen to my question,</p> <p>21 Doctor. My question is can you cite for me any studies</p> <p>22 showing the findings you report in your manuscript or</p> <p>23 in your expert report in this case to have occurred or</p> <p>24 been reported in women using talc on their bodies?</p> <p>25 MS. O'DELL: Object to the form.</p>	<p style="text-align: right;">Page 229</p> <p>1 lines from ATCC, they have described them where they</p> <p>2 isolated from and what's the patient and all that, but</p> <p>3 I can't remember exactly which one is which.</p> <p>4 BY MR. HEGARTY:</p> <p>5 Q. So are any of these cell lines or have any of these</p> <p>6 cell lines been qualified as high grade serous ovarian</p> <p>7 cancer cell lines?</p> <p>8 MS. O'DELL: Object to the form.</p> <p>9 THE WITNESS: I can't remember.</p> <p>10 BY MR. HEGARTY:</p> <p>11 Q. You say that your experiments used what you call --</p> <p>12 well, you say immortalized human fallopian tube</p> <p>13 epithelial cells FT33, is that right?</p> <p>14 A. FT33, yes.</p> <p>15 Q. Those, as you note in your paper, are immortalized cell</p> <p>16 lines, correct?</p> <p>17 A. Correct.</p> <p>18 Q. And such cell lines are considered abnormal or</p> <p>19 precancerous, isn't that correct?</p> <p>20 A. Not necessarily.</p> <p>21 Q. Well, they were modified to essentially live forever,</p> <p>22 correct?</p> <p>23 A. No, it's not correct.</p> <p>24 Q. Well --</p> <p>25 A. They're modified so they can be consistent.</p>

58 (Pages 226 to 229)

Ghassan Saed, Ph.D.

Page 230	Page 232
<p>1 Q. But normal cells are not immortalized cells, correct?</p> <p>2 A. Correct.</p> <p>3 Q. And to immortalize a cell, you have to fundamentally</p> <p>4 change the cell, correct?</p> <p>5 A. Not correct.</p> <p>6 Q. Well, you typically have to induce something like the</p> <p>7 SV40 DNA tumor virus, correct?</p> <p>8 A. Correct.</p> <p>9 Q. And that alters the makeup of the cells, correct?</p> <p>10 A. Not necessarily.</p> <p>11 Q. Well, it essentially shuts off, for example, the P53</p> <p>12 cell, P53 marker, correct?</p> <p>13 A. Oncogene.</p> <p>14 Q. Oncogene, correct? And these cells carry essentially a</p> <p>15 functional equivalent of four critical oncogenes,</p> <p>16 oncogenic mutations in tumor suppression pathways that</p> <p>17 have been implicated in ovarian carcinogenesis,</p> <p>18 correct?</p> <p>19 A. Let me explain to you, I have been conducting research</p> <p>20 all my career using primary cultures of cells</p> <p>21 established from -- fresh from patient tissues as well</p> <p>22 as immortalized cell lines. The problem with using</p> <p>23 primary cultures, the results cannot be reproduced,</p> <p>24 because if you passage the cells, they change their</p> <p>25 phenotype with passages, so researcher agreed upon this</p>	<p>1 THE WITNESS: So, again, I said one of the</p> <p>2 cell lines, I can't remember which, is from high grade,</p> <p>3 high serous grade. The others are not clearly</p> <p>4 identified by the ATCC information provided. But that</p> <p>5 was not my point of my research. My point of my</p> <p>6 research is to see does talcum powder induces or alter</p> <p>7 oxidative stress markers that we know and we have</p> <p>8 published in several documents that is associated with</p> <p>9 ovarian cancer.</p> <p>10 BY MR. HEGARTY:</p> <p>11 Q. Can you cite for me any data showing that the</p> <p>12 concentrations of exposure that you used in your</p> <p>13 experiments are similar or the same as would be</p> <p>14 occurring in women using talc on the perineum?</p> <p>15 A. I can't tell you that.</p> <p>16 Q. Can you cite for me any data that shows that the level</p> <p>17 of concentration of talc that you used in your cell</p> <p>18 studies has ever occurred in women applying talc to</p> <p>19 their bodies?</p> <p>20 MS. O'DELL: Object to the form.</p> <p>21 THE WITNESS: My response to this is I</p> <p>22 consider, according to my studies, I consider talc</p> <p>23 powder to be carcinogenic, and in my understanding of</p> <p>24 biology of cancer, there is no minimum threshold beyond</p> <p>25 which you are protected from developing cancer. Every</p>
Page 231	Page 233
<p>1 is the best utility that you have in vitro, that you</p> <p>2 can use immortalized cell lines, at least they are</p> <p>3 all -- their machinery of gene expression is controlled</p> <p>4 and it's consistent and reproducible with passages.</p> <p>5 Q. Did you do anything to correlate the cell lines you</p> <p>6 used to, for example, serous ovarian cancer cells in</p> <p>7 vivo?</p> <p>8 MS. O'DELL: Object to the form.</p> <p>9 THE WITNESS: Yeah, so from patients, this is</p> <p>10 our -- my next interest to do, to go -- I have</p> <p>11 extensive experience and expertise in isolating primary</p> <p>12 cultures at zero passages from patients' tissues,</p> <p>13 blood, and the fluid, and it is in my mind to do</p> <p>14 further testing of talcum powder and see if we can</p> <p>15 reproduce the effect on those cells.</p> <p>16 BY MR. HEGARTY:</p> <p>17 Q. When you say those cells, what do you mean?</p> <p>18 A. The primary freshly established cells from different</p> <p>19 histotypes of ovarian cancer.</p> <p>20 Q. Did you do anything --</p> <p>21 A. Because this is not available commercially.</p> <p>22 Q. Did you do anything to establish that the cell lines</p> <p>23 you were looking at are, for example, high grade</p> <p>24 serious ovarian cancer cell lines?</p> <p>25 MS. O'DELL: Object to the form.</p>	<p>1 time you're exposed to the insult. It's like</p> <p>2 radiation, it is a accumulative, it is registered in</p> <p>3 your body; that's my opinion.</p> <p>4 BY MR. HEGARTY:</p> <p>5 Q. So your opinion is that one particle of talc is enough</p> <p>6 to cause inflammation to lead to ovarian cancer?</p> <p>7 A. I did not say that.</p> <p>8 Q. Well, how much talc must there be introduced in vivo to</p> <p>9 cause ovarian cancer?</p> <p>10 A. I don't know.</p> <p>11 Q. At what -- strike that. What data shows that a woman</p> <p>12 using talc will have the same level of talc exposure to</p> <p>13 her ovarian cells or fallopian tube cells as you used</p> <p>14 in your experiments?</p> <p>15 MS. O'DELL: Object to the form.</p> <p>16 THE WITNESS: So when you want to test the</p> <p>17 effect of any substance in the biology of the body, you</p> <p>18 always start with cell cultures, cell lines, so this is</p> <p>19 pretty accepted standard. Now, the amount of exposure</p> <p>20 in cell lines, because it's direct and it is an</p> <p>21 isolated environment, it is definitely not -- does not</p> <p>22 correlate with the in vivo and how much you will get</p> <p>23 with that exposure. The answer is I don't know how</p> <p>24 much a woman need to be exposed and for how long to</p> <p>25 develop ovarian cancer in response to talcum powder</p>

59 (Pages 230 to 233)

Ghassan Saed, Ph.D.

<p style="text-align: right;">Page 234</p> <p>1 use. But what I do know, talcum powder induces -- is a</p> <p>2 carcinogenic and induces similar response to the</p> <p>3 profile that we see in pro-oxidant state that we</p> <p>4 extensively characterize in studies in ovarian cancer</p> <p>5 in our laboratory and others.</p> <p>6 BY MR. HEGARTY:</p> <p>7 Q. It induces -- talc induces a similar response to the</p> <p>8 profile that you see in pro-oxidant state in the cell</p> <p>9 cultures that you experimented, correct, experimented</p> <p>10 with, correct?</p> <p>11 MS. O'DELL: Object to the form.</p> <p>12 THE WITNESS: We and others have reported,</p> <p>13 for example, there was a report showing that patients</p> <p>14 with ovarian cancer, their blood is contain high levels</p> <p>15 of pro-oxidants, so that's an indication that ovarian</p> <p>16 cancer -- as a result of getting ovarian cancer your</p> <p>17 blood is -- have high levels of oxidants that we</p> <p>18 characterized. And there are many other studies that</p> <p>19 have shown that -- in vivo that there is an association</p> <p>20 between oxidative stress and the risk of developing</p> <p>21 ovarian cancer.</p> <p>22 BY MR. HEGARTY:</p> <p>23 Q. But none of those studies have shown those effects in</p> <p>24 women using talc, correct?</p> <p>25 A. I don't know.</p>	<p style="text-align: right;">Page 236</p> <p>1 A. The blood of woman with ovarian cancer.</p> <p>2 Q. No studies have reported those same results in the</p> <p>3 blood of women who do not have ovarian cancer but are</p> <p>4 using talc on their bodies, correct?</p> <p>5 A. One more time.</p> <p>6 MS. O'DELL: Object to the form.</p> <p>7 BY MR. HEGARTY:</p> <p>8 Q. No studies have reported those same results in the</p> <p>9 blood of women who do not have ovarian cancer that are</p> <p>10 using talc on their bodies, correct?</p> <p>11 A. I don't know.</p> <p>12 Q. When you say you don't know, what do you mean?</p> <p>13 A. I don't know if there are studies. So you talking --</p> <p>14 are you referring to the study -- I'm only referring to</p> <p>15 patients with ovarian cancer, blood, their blood have</p> <p>16 high oxidants. Now, if normal, talk about normal</p> <p>17 people with normal woman with no ovarian cancer, they</p> <p>18 have -- I don't know, if they use talc they will have</p> <p>19 higher level of oxidants, maybe that's something we</p> <p>20 need to do.</p> <p>21 Q. You don't know -- you're not aware of any data showing</p> <p>22 high oxidant levels in women using talc who do not have</p> <p>23 ovarian cancer?</p> <p>24 A. I would be very much interested to do it.</p> <p>25 Q. You're not aware of any such studies?</p>
<p style="text-align: right;">Page 235</p> <p>1 Q. You don't know of any such studies?</p> <p>2 A. I don't know if those studies included in their</p> <p>3 population women that who have used talc or not.</p> <p>4 Q. You can't site for me any studies that have shown the</p> <p>5 levels of pro-oxidant or anti-oxidant states that you</p> <p>6 report in your papers in women using talc, correct?</p> <p>7 MS. O'DELL: Object to the form.</p> <p>8 THE WITNESS: I just answered you.</p> <p>9 BY MR. HEGARTY:</p> <p>10 Q. And the answer is no?</p> <p>11 A. No, no, I just -- my previous answer is the same.</p> <p>12 Q. Which is what?</p> <p>13 A. Which I said oxidative -- there have been shown that in</p> <p>14 the blood of a woman with ovarian cancer, there is an</p> <p>15 elevated levels of oxidants, and we're saying that if</p> <p>16 talcum powder induces oxidative stress, alter oxidative</p> <p>17 levels and redox balance by increasing oxidants and</p> <p>18 decreasing anti-oxidants, according to our data, that</p> <p>19 is an indication that it is doing -- manifesting the</p> <p>20 pathogenesis of ovarian cancer.</p> <p>21 Q. The studies you're referring to --</p> <p>22 MR. KLATT: Objection, nonresponsive.</p> <p>23 BY MR. HEGARTY:</p> <p>24 Q. The studies you're referring to have been reported to</p> <p>25 have occurred in women with ovarian cancer, correct?</p>	<p style="text-align: right;">Page 237</p> <p>1 A. No.</p> <p>2 Q. Can you can cite for me anyone in the scientific</p> <p>3 community who has accepted that talcum powder causes</p> <p>4 ovarian cancer by the mechanism that you refer to in</p> <p>5 your report?</p> <p>6 A. Give names?</p> <p>7 Q. Yes.</p> <p>8 A. The co-authors of my manuscript.</p> <p>9 Q. Anyone else?</p> <p>10 A. I'm not aware, this is a very recent study.</p> <p>11 Q. Is it your testimony that the scientific community has</p> <p>12 accepted your opinion as establishing the causal</p> <p>13 mechanism between talc and ovarian cancer?</p> <p>14 MS. O'DELL: Object to the form.</p> <p>15 THE WITNESS: My opinion is not out there</p> <p>16 yet, it's -- this is -- the manuscript is still under</p> <p>17 press, it's in press so it's not really out for the</p> <p>18 readers.</p> <p>19 BY MR. HEGARTY:</p> <p>20 Q. You agree that the medical community has not generally</p> <p>21 accepted that talc use causes ovarian cancer?</p> <p>22 MS. O'DELL: Object to the form.</p> <p>23 THE WITNESS: That they accept --</p> <p>24 BY MR. HEGARTY:</p> <p>25 Q. Yes.</p>

60 (Pages 234 to 237)

Ghassan Saed, Ph.D.

Page 238	Page 240
<p>1 A. Which community you talking about?</p> <p>2 Q. Well, I'm talking about the medical community.</p> <p>3 A. The doctors?</p> <p>4 Q. Doctors.</p> <p>5 A. Researchers?</p> <p>6 Q. Researchers.</p> <p>7 MS. O'DELL: Object to the form.</p> <p>8 BY MR. HEGARTY:</p> <p>9 Q. You agree that the medical community, doctors and</p> <p>10 researchers, have not generally accepted that talc use</p> <p>11 causes ovarian cancer?</p> <p>12 MS. O'DELL: Object to the form.</p> <p>13 THE WITNESS: I don't know, I really don't</p> <p>14 know if they do or not.</p> <p>15 BY MR. HEGARTY:</p> <p>16 Q. You include in your report, in particular in the</p> <p>17 summary of your report over on Page 20, in Paragraphs 5</p> <p>18 and 6 that use of Johnson's Baby Powder can cause</p> <p>19 ovarian cancer, and in Paragraph 6 can worsen the</p> <p>20 prognosis of patients with ovarian cancer, correct?</p> <p>21 A. Correct.</p> <p>22 Q. By what methodology did you use to come to those</p> <p>23 opinions?</p> <p>24 A. Okay. So I have to distinguish between opinions versus</p> <p>25 conclusion from results. So here I cite my personal</p>	<p>1 ovarian cancer is in a hypothesis is a cause and</p> <p>2 effect. My opinion is based on that.</p> <p>3 Q. Are the methods that you used to reach those opinions</p> <p>4 published anywhere?</p> <p>5 A. The method that we used to do -- to test the effect of</p> <p>6 talcum powder on reactive oxygen species, oxidative</p> <p>7 stress, and inflammation is very basic methodology --</p> <p>8 let me finish, please -- basic methodology that is</p> <p>9 known since early 70s or even mid 70s, some of it,</p> <p>10 ELISA is a very well method, very standard method, we</p> <p>11 and others use this all the time. PCR is another well</p> <p>12 established method. Every single study now you see PCR</p> <p>13 all over the places. So what the methodology that we</p> <p>14 employed here is really standard methodology, and I'm</p> <p>15 really surprised that this work that has not been done</p> <p>16 till now.</p> <p>17 Q. Are your opinions based solely on the experiments that</p> <p>18 you did that are set out in your manuscript?</p> <p>19 MS. O'DELL: Object to the form.</p> <p>20 THE WITNESS: My opinion is based on the data</p> <p>21 from this manuscript and this work that I did and,</p> <p>22 also, in published literature that identify the</p> <p>23 pattern, the signature of pro-oxidants in ovarian</p> <p>24 cancer.</p> <p>25</p>
Page 239	Page 241
<p>1 opinion. Now, my personal opinion is based on my data</p> <p>2 that I got here. The data that I tested, my</p> <p>3 methodology that I used, and the results of this study</p> <p>4 strongly divert -- pushed my opinion towards this.</p> <p>5 Q. My question is a little bit different, Doctor. By what</p> <p>6 published methodology did you use to reach your</p> <p>7 causation opinions in this case?</p> <p>8 MS. O'DELL: Objection, asked and answered.</p> <p>9 BY MR. HEGARTY:</p> <p>10 Q. For example, are you familiar with the Bradford Hill</p> <p>11 factors or criteria?</p> <p>12 A. Okay, so are you referring to epidemiological studies?</p> <p>13 Q. No, let me back up. Have you ever heard of the</p> <p>14 Bradford Hill factors?</p> <p>15 A. No.</p> <p>16 Q. Is there -- can you cite for me any published</p> <p>17 methodology that you used to look at the data, look at</p> <p>18 your experiments, and come to the opinions that you set</p> <p>19 out in the summary of your report?</p> <p>20 A. Yes. I just said to you that based on my results and</p> <p>21 my previous finding, previous publications with other</p> <p>22 publications from other laboratories, that all agreed</p> <p>23 that a factor that causes inflammation and alter these</p> <p>24 signature factors, the signature for reactive oxygen</p> <p>25 species the way it does it for -- that simulates</p>	<p>1 BY MR. HEGARTY:</p> <p>2 Q. The opinions that you set out in Paragraphs 5 and 6</p> <p>3 have never been published in the peer-reviewed</p> <p>4 literature, correct?</p> <p>5 A. My opinion?</p> <p>6 MS. O'DELL: Object to the form.</p> <p>7 BY MR. HEGARTY:</p> <p>8 Q. Yes. The opinions in Paragraphs 5 and 6 have never</p> <p>9 been published in the peer-reviewed literature,</p> <p>10 correct?</p> <p>11 MS. O'DELL: Object to the form.</p> <p>12 THE WITNESS: I don't understand published</p> <p>13 means.</p> <p>14 BY MR. HEGARTY:</p> <p>15 Q. Well, published in peer-reviewed literature.</p> <p>16 A. As what, as a manuscript?</p> <p>17 Q. In any format. You have never set out the opinions in</p> <p>18 Paragraphs 5 and 6 in any public --</p> <p>19 A. So I read this somewhere else?</p> <p>20 Q. Somewhere else.</p> <p>21 A. I never read this somewhere else.</p> <p>22 Q. So you have never provided your opinions to any of your</p> <p>23 peers in any published article, correct?</p> <p>24 MS. O'DELL: Object to the form.</p> <p>25 THE WITNESS: That's very general. What do</p>

61 (Pages 238 to 241)

Ghassan Saed, Ph.D.

Page 242	Page 244
<p>1 you mean?</p> <p>2 BY MR. HEGARTY:</p> <p>3 Q. Well, my question is the opinions you said in</p> <p>4 Paragraphs 5 and 6 have never been published anywhere,</p> <p>5 correct?</p> <p>6 MS. O'DELL: Object to the form.</p> <p>7 THE WITNESS: No. What I'm saying is these</p> <p>8 are my own, my own opinion, my own writing, writing.</p> <p>9 If someone stole this and published it, I'm not aware</p> <p>10 of that, but this is my language, my words, my opinion,</p> <p>11 and this is based, as I told you and as I mentioned, on</p> <p>12 my data and the results of this study as well as what</p> <p>13 is known for the strong link of ovarian cancer and</p> <p>14 oxidative stress.</p> <p>15 BY MR. HEGARTY:</p> <p>16 Q. Listen to my question. You have never published the</p> <p>17 opinions of yours set out in Paragraphs 5 and 6 of your</p> <p>18 report, correct?</p> <p>19 MS. O'DELL: Object to the form.</p> <p>20 THE WITNESS: I have published that ovarian</p> <p>21 cancer is characterized and ovarian cancer cells</p> <p>22 manifest a pro-oxidant state, I have published that --</p> <p>23 BY MR. HEGARTY:</p> <p>24 Q. Nowhere have you --</p> <p>25 A. -- that can lead to a mechanism to identify --</p>	<p>1 BY MR. HEGARTY:</p> <p>2 Q. By you.</p> <p>3 A. My opinion?</p> <p>4 Q. Yes.</p> <p>5 A. Has never been -- I never said this before, this</p> <p>6 study --</p> <p>7 Q. Correct.</p> <p>8 A. -- is that what you're saying?</p> <p>9 Q. Before your report.</p> <p>10 A. About specifically talc and ovarian cancer?</p> <p>11 Q. Yes.</p> <p>12 A. Yes.</p> <p>13 Q. And you never said in any other writing that use of</p> <p>14 baby powder worsens the prognosis for patients with</p> <p>15 ovarian cancer?</p> <p>16 A. I didn't write about this subject prior to starting</p> <p>17 these experiments.</p> <p>18 Q. Even in your manuscript, you don't include the opinion</p> <p>19 that talcum powder use causes ovarian cancer, correct?</p> <p>20 A. You cannot include opinions in manuscripts.</p> <p>21 Q. That's not my question. My question is that your</p> <p>22 manuscript does not include your opinion that talcum</p> <p>23 powder use causes ovarian cancer, correct?</p> <p>24 A. I answered you.</p> <p>25 MS. O'DELL: Object to the form.</p>
Page 243	Page 245
<p>1 actually, we did identify a pathogenesis, a mechanism</p> <p>2 that involves these specific pro-oxidants to be unique</p> <p>3 mechanism of survival in ovarian cancer.</p> <p>4 Q. Nowhere have you published in any literature that talc</p> <p>5 use can cause ovarian cancer, correct?</p> <p>6 A. Previous to this study?</p> <p>7 Q. This study -- your report has not been published,</p> <p>8 correct?</p> <p>9 A. No.</p> <p>10 Q. It's not been peer reviewed, correct?</p> <p>11 A. No, my report? No.</p> <p>12 Q. What you say in your report that Johnson's Baby Powder</p> <p>13 exposure can cause ovarian cancer has never been</p> <p>14 published in the medical literature, correct?</p> <p>15 MS. O'DELL: Object to the form.</p> <p>16 THE WITNESS: My report has not published</p> <p>17 yet.</p> <p>18 BY MR. HEGARTY:</p> <p>19 Q. The opinions in your report that talcum powder exposure</p> <p>20 can cause ovarian cancer have never been published,</p> <p>21 correct?</p> <p>22 MS. O'DELL: Object to the form, by him or</p> <p>23 others?</p> <p>24 THE WITNESS: Okay. By me?</p> <p>25</p>	<p>1 BY MR. HEGARTY:</p> <p>2 Q. Am I correct?</p> <p>3 MS. O'DELL: Object to the form.</p> <p>4 THE WITNESS: Excuse me, one more time. I</p> <p>5 said in manuscripts you are not allowed to publish to</p> <p>6 draw opinions, in manuscripts you're allowed to draw</p> <p>7 conclusions, so conclusions are different than</p> <p>8 opinions. Conclusions are based solely on the results.</p> <p>9 Opinions, you can say it, if you say it, then if they</p> <p>10 accept it, it's fine, but opinions are based on not</p> <p>11 just the study but your opinion in it, too, based on</p> <p>12 your expertise.</p> <p>13 BY MR. HEGARTY:</p> <p>14 Q. Move to strike as nonresponsive. Doctor, listen to my</p> <p>15 question.</p> <p>16 A. I'm trying.</p> <p>17 Q. Your manuscript does not include your opinion that baby</p> <p>18 powder exposure can cause ovarian cancer, you don't say</p> <p>19 that in your manuscript, correct?</p> <p>20 MS. O'DELL: Object to the form.</p> <p>21 THE WITNESS: I have to look in my</p> <p>22 manuscript.</p> <p>23 BY MR. HEGARTY:</p> <p>24 Q. Doctor, you can't tell me sitting here today --</p> <p>25 A. I'm sorry, I can't remember everything I wrote.</p>

62 (Pages 242 to 245)

Ghassan Saed, Ph.D.

Page 246	Page 248
<p>1 Q. Listen to my question.</p> <p>2 A. Okay.</p> <p>3 Q. Does your manuscript say that Johnson's Baby Powder</p> <p>4 exposure can cause ovarian cancer?</p> <p>5 A. In this specific language?</p> <p>6 Q. Yes.</p> <p>7 A. I have to look.</p> <p>8 Q. Okay. How about do you have to look --</p> <p>9 A. Because you're asking me -- it's not fair, you're</p> <p>10 asking me for a specific language, and I am saying, I'm</p> <p>11 answering back saying that my opinion, it does. Based</p> <p>12 on the results in my manuscript, I concluded that it</p> <p>13 will -- it has increased risk of ovarian cancer, yes,</p> <p>14 somewhere. I have to read. That's what I'm saying. I</p> <p>15 don't remember where I did that.</p> <p>16 Q. Okay.</p> <p>17 A. I have to go and refer to the manuscript. Is that</p> <p>18 fair?</p> <p>19 Q. In Paragraph 6, what do you mean when you say Johnson's</p> <p>20 Baby Powder exposure worsens the prognosis for patients</p> <p>21 with ovarian cancer?</p> <p>22 A. Oh, we're still here? I'm sorry, where --</p> <p>23 Q. Paragraph 6 in your report.</p> <p>24 A. Oh, my report now?</p> <p>25 Q. On Page 21.</p>	<p>1 A. What I know is CA-125 is accepted, it's the only</p> <p>2 accepted marker because that's the only one available,</p> <p>3 although not specific to ovarian cancer, but we use it</p> <p>4 for preliminary following up treatment and diagnosis.</p> <p>5 You can, you know, I can defer to a clinician to answer</p> <p>6 more about that, but what I know is that it is not</p> <p>7 specific to ovarian cancer, endometriosis can increase</p> <p>8 levels of CA-125, some other inflammatory can do that.</p> <p>9 Q. Doctor, listen to my question. My question was that no</p> <p>10 studies have correlated CA-125 levels with ovarian</p> <p>11 cancer risk, correct?</p> <p>12 MS. O'DELL: Object to the form.</p> <p>13 THE WITNESS: Again, I told you, I'm not an</p> <p>14 expert in CA-125 and its clinical utility. What I'm</p> <p>15 trying to tell you is that CA-125 is a marker that</p> <p>16 clinician, OB-GYN oncologist, use to help them diagnose</p> <p>17 and follow up the effect of -- the efficacy of</p> <p>18 treatment. Now, this molecule is a marker of</p> <p>19 inflammation, and we and our results shows clearly that</p> <p>20 talcum powder can induce this inflammatory marker that</p> <p>21 has been clinically used by clinicians to help them</p> <p>22 diagnose and, more importantly, follow up the efficacy</p> <p>23 of treatment.</p> <p>24 BY MR. HEGARTY:</p> <p>25 Q. Dr. Listen, to my question. I'll ask a different</p>
Page 247	Page 249
<p>1 A. 21?</p> <p>2 Q. Yes.</p> <p>3 A. Okay, yes, so same, same discussion.</p> <p>4 Q. Listen to my question. My question is what do you mean</p> <p>5 that Johnson's Baby Powder exposure worsens the</p> <p>6 prognosis for patients with ovarian cancer?</p> <p>7 A. Can I answer?</p> <p>8 Q. Yes.</p> <p>9 A. Okay. So based on our results here, we have shown that</p> <p>10 there is a dose response effect of talcum powder on</p> <p>11 these key markers of oxidative stress. That's my</p> <p>12 answer.</p> <p>13 Q. And how do those key -- strike that.</p> <p>14 A. Dose response.</p> <p>15 Q. What is the measure that you apply for worsening the</p> <p>16 prognosis of ovarian cancer?</p> <p>17 A. Is increasing redox balance -- reactive oxygen species,</p> <p>18 tilting the balance, adding more inflammatory markers</p> <p>19 with time with exposure.</p> <p>20 Q. You make reference in your paper to CA-125, when I say</p> <p>21 your paper I'm talking about your report and in your</p> <p>22 manuscript, correct?</p> <p>23 A. Correct.</p> <p>24 Q. No studies have correlated CA-125 levels with ovarian</p> <p>25 cancer risk, correct?</p>	<p>1 question. CA-125 is used only in monitoring disease</p> <p>2 progress in women who have ovarian cancer, correct?</p> <p>3 A. I don't know if that's the only use of it.</p> <p>4 Q. It's not used to diagnose ovarian cancer, correct?</p> <p>5 A. I don't know. I'm not a clinician. I really don't</p> <p>6 know.</p> <p>7 Q. It's not used to determine the cause of ovarian cancer,</p> <p>8 is it?</p> <p>9 A. I don't know, you can ask. I defer these questions to</p> <p>10 a physician, OB-GYN oncologist who can answer you. I</p> <p>11 am a biological chemist, I'm molecular biologist. I</p> <p>12 will answer you within my expertise.</p> <p>13 Q. CA-125 is not used to determine whether women have an</p> <p>14 inflammatory process going on in their bodies, correct?</p> <p>15 MS. O'DELL: Object to the form.</p> <p>16 THE WITNESS: If the levels of CA-125 is</p> <p>17 increased in a woman, my understanding, this is a</p> <p>18 strong indication to an inflammatory process going on,</p> <p>19 yes.</p> <p>20 BY MR. HEGARTY:</p> <p>21 Q. You're talking about in women who have ovarian cancer?</p> <p>22 A. It is also increased in women with, yes, with ovarian</p> <p>23 cancer.</p> <p>24 Q. CA-125 is not used to diagnose whether inflammation is</p> <p>25 going on in women who do not have ovarian cancer?</p>

63 (Pages 246 to 249)

Ghassan Saed, Ph.D.

Page 250	Page 252
<p>1 MS. O'DELL: Object to the form.</p> <p>2 THE WITNESS: Ask the OB-GYN oncologist.</p> <p>3 BY MR. HEGARTY:</p> <p>4 Q. If you look at your manuscript over at Table 2.</p> <p>5 A. Okay.</p> <p>6 Q. What is the mechanism by which talc causes the SNP</p> <p>7 changes or switches you report in this table?</p> <p>8 A. Do I know the mechanism that does that?</p> <p>9 Q. Yes.</p> <p>10 A. Precisely, no, but we have previously published a</p> <p>11 report showing that development of chemoresistance,</p> <p>12 which is an ovarian cancer -- ovarian cancer disease</p> <p>13 that is characterized by even further enhancement of</p> <p>14 oxidative stress, we have published that is associated</p> <p>15 with these SNPs. So the precise mechanism I'm</p> <p>16 proposing that according to my understanding is that</p> <p>17 the higher the oxidative stress level, the more chances</p> <p>18 that you induce these switches, these mutations.</p> <p>19 Q. Can you cite for me any published data showing these</p> <p>20 same or similar type of switches in cells that have</p> <p>21 been exposed to any other substance, whether it's a</p> <p>22 carcinogen or otherwise?</p> <p>23 A. If there is any other substance that induces mutations?</p> <p>24 Q. That induces the kinds of mutations that you report</p> <p>25 here.</p>	<p>1 results in further inhibition of apoptosis and increase</p> <p>2 of survival -- apoptosis, cell death, cell death.</p> <p>3 Q. Doctor, listen to my question. Can you cite for me any</p> <p>4 other substances that have ever been reported to cause</p> <p>5 these kinds of mutations after 72 hours of treatment in</p> <p>6 cell cultures?</p> <p>7 A. I cannot recall now.</p> <p>8 Q. The cell cultures you used are at high oxygen levels,</p> <p>9 are at high oxygen levels than in vivo, correct?</p> <p>10 A. I don't understand the question.</p> <p>11 Q. Well, the cell cultures that you use for purpose of</p> <p>12 your experiments are at higher oxygen levels than these</p> <p>13 cells would experience in vivo, correct?</p> <p>14 A. You mean the whole world of researcher used?</p> <p>15 Q. No, that the cell lines that you used --</p> <p>16 A. The whole world of researcher used, same 20 percent</p> <p>17 oxygen in CO₂, okay, it's the same exact standard</p> <p>18 protocol all over the research field. I never heard</p> <p>19 that there's anyone culturing cancer cells in a</p> <p>20 different environment than -- we have done many work</p> <p>21 looking at the effect of hypoxia and hyperoxia on the</p> <p>22 expression of these markers in normal cells. We have</p> <p>23 done several, I have published several publications.</p> <p>24 Let me help you with this information.</p> <p>25 Q. Let me withdraw the question, Doctor. You're going on</p>
Page 251	Page 253
<p>1 A. In the literature, there are several, many substance</p> <p>2 that have been associated with certain mutations in the</p> <p>3 DNA, yes.</p> <p>4 Q. Well, let me ask it a different way. Can you cite for</p> <p>5 me any substance that has been shown to cause -- or</p> <p>6 strike that, let me back up. Is it your testimony that</p> <p>7 what you're reporting here -- that you're reporting</p> <p>8 here that talc causes mutations in DNA in 72 hours?</p> <p>9 MS. O'DELL: Object to form.</p> <p>10 THE WITNESS: My results indicates that if</p> <p>11 you treat cells with talcum powder for 72 hours and</p> <p>12 look for whatever showed positive here, some showed</p> <p>13 negative, that there is an induction of this specific</p> <p>14 mutation in response to the treatment of talc.</p> <p>15 BY MR. HEGARTY:</p> <p>16 Q. Can you cite for me any other substance that's ever</p> <p>17 been reported to cause these kinds of mutations after</p> <p>18 72 hours of treatment in cell cultures?</p> <p>19 A. I cannot recall now. I'm sure I can find them. There</p> <p>20 are many in the literature, by the way, but I am citing</p> <p>21 you specifically my work that I have done in my</p> <p>22 laboratory that was shown that when oxidative stresses</p> <p>23 further -- increased and enhanced, we develop some of</p> <p>24 these mutations, cell would acquire these mutations in</p> <p>25 certain key pro-oxidants and anti-oxidant enzymes that</p>	<p>1 not answering my question.</p> <p>2 A. I'm trying.</p> <p>3 Q. No, you're not answering my question.</p> <p>4 A. I'm answering what I understood.</p> <p>5 Q. The tests you conducted, the experiments you conducted</p> <p>6 are higher oxygen levels than cells are exposed to in</p> <p>7 vivo, correct?</p> <p>8 A. I'm trying to -- no, it's not, I'm trying to explain it</p> <p>9 to you.</p> <p>10 Q. They're not higher levels?</p> <p>11 A. What do you mean by in vivo? In blood?</p> <p>12 Q. Cells inside the body.</p> <p>13 A. It's PO₂, it's the same.</p> <p>14 Q. So the oxygen levels of the cells in the body are at</p> <p>15 the same level as the oxygen levels of the cells in</p> <p>16 your cell --</p> <p>17 MS. O'DELL: Objection.</p> <p>18 THE WITNESS: No, I said the oxygen levels in</p> <p>19 the circulation in vivo is the same as the oxygen level</p> <p>20 in the media where we culture cells. This is where we</p> <p>21 get it from, not from a dream, we got it from there.</p> <p>22 Now, if you're referring to the oxygen levels that</p> <p>23 cells are exposed to in tissues --</p> <p>24 BY MR. HEGARTY:</p> <p>25 Q. Yes.</p>

Ghassan Saed, Ph.D.

<p style="text-align: center;">Page 254</p> <p>1 A. Nobody knows that. There's only one single report that 2 says in a physiology book where I was a student at that 3 time, they're saying 6 percent, 5 to 6 percent. But 4 that is inside the tissues without the circulation. 5 Now, you have to remember all cells get food from 6 circulation, so you will have eventually enough oxygen 7 that you're getting for. So this is within my 8 expertise, I've done many, many work on this. 9 Q. The glucose levels in your cell cultures are also 10 higher than what the cells would experience in the 11 body, correct? 12 A. The glucose level that we use in the media, again, is 13 standard with all of any researcher on the face of this 14 earth use. It is standard accepted levels. So if you 15 are trying to make that what we use is different than 16 in vivo, it could be, but this is what agreed upon in 17 the research community. 18 Q. Move to strike as nonresponsive. Listen to my 19 question, Doctor. Are the glucose levels in cell 20 cultures that you performed for purposes of your 21 experiments higher than the glucose levels of the cells 22 inside the body? 23 MS. O'DELL: Objection, form, asked and 24 answered. 25 THE WITNESS: I don't know.</p>	<p style="text-align: center;">Page 256</p> <p>1 that -- why do your control cell lines have such high 2 levels of Caspase? 3 A. So it is known, as we have previously published and all 4 other researcher who was interested in this, that 5 cancer cells have almost shut down their apoptosis, 6 because they have to increase their survival. So when 7 you compare apoptosis of any cancer cell from any type, 8 okay, you will find their apoptosis is way, way lower 9 than normal cells. Normal cells, they have -- they 10 divide, they die, they reproduce, all the times. 11 Cancer cells don't like to die, they love to survive, 12 so their apoptotic pathways are not normal. 13 Q. So then what you're reporting here are as to control 14 cells, controls in ovarian cancer cells? 15 A. No, no. The controls here are macrophages, it's normal 16 ovarian epithelial, and fallopian tube epithelial. 17 Q. Why are your -- the Caspase levels higher in your 18 controls than in your talc treated cells? 19 A. Maybe I missed the question. I just answered that, 20 right? 21 Q. Well, I don't think you answered my question. 22 A. Well, let me try to understand what you want. 23 Q. Well, the Figure 6 shows that the controls have higher 24 levels of Caspase-3 than the talc treated cells, 25 correct?</p>
<p style="text-align: center;">Page 255</p> <p>1 BY MR. HEGARTY: 2 Q. Aren't the cells that you experiment with in a 3 hyperglycemic state? 4 A. I just told I don't know. 5 Q. Can high glucose levels cause an increase in reactive 6 oxygen species? 7 A. Okay, so -- 8 Q. Can they or can't they? 9 MS. O'DELL: He gets to -- you asked the 10 question, he -- 11 THE WITNESS: There is no yes or no answer. 12 BY MR. HEGARTY: 13 Q. Okay. I withdraw the question. 14 A. If you are trying to take me to say "yes" or "no" to 15 something that I have explanation for, I think you 16 should just listen to my explanation. I am actually -- 17 this field, this field is my field, and I will tell 18 you, okay, I'll tell you that the cancer cells are -- 19 their metabolism is different than normal cells because 20 their uptake, their uptake of glucose, they don't go in 21 aerobic metabolism, they go anaerobic metabolism, so it 22 doesn't matter how much glucose you give them, it 23 doesn't really. 24 Q. If you look over on Page -- Figure 6 of your 25 manuscript, why do your normal cell lines -- strike</p>	<p style="text-align: center;">Page 257</p> <p>1 MS. O'DELL: Object to the form. Do you need 2 to see that in color, Doctor? Would that help? 3 THE WITNESS: Yes, please. 4 MS. O'DELL: (Handing.) 5 THE WITNESS: So here, the control cells, so 6 let's look at the normal cells -- okay, the normal 7 cells -- well, that's the whole idea, the whole 8 objective of this research, the whole point, that if 9 you treat with talcum powder, talcum powder induces -- 10 enhances oxidative stress that stimulate apoptosis 11 pathways and shut them down, inhibit them. So in the 12 treated -- in the treated, they should be lower than 13 the untreated. 14 BY MR. HEGARTY: 15 Q. What are the normal Caspase levels in a normal cell? 16 A. It's different for different cell types, but normal 17 cell types, normal cells always have way higher 18 apoptosis than cancer cells. This is well known 19 phenomenon. 20 Q. At the levels you report in Figure 6? 21 A. It depends on the cells, again, I said, it depends on 22 the cell type. So maybe other people in their work, 23 they have different response. But it is accepted that 24 is cancer cells, all cancer cells, no exception, have 25 lower, way lower apoptosis than normal cells. I</p>

Ghassan Saed, Ph.D.

Page 258	Page 260
<p>1 published previously that lower apoptosis in cancer</p> <p>2 cells is due to overexpression of nitric oxide</p> <p>3 synthase, which is a pro-oxidant, and myeloperoxidase,</p> <p>4 which is another pro-oxidant, and they work together to</p> <p>5 nitrilotate Caspase-3, that's what we're measuring</p> <p>6 here, and shutting down its activity and its apoptosis.</p> <p>7 Q. The type of SNP changes that you report in your</p> <p>8 manuscript can be detected by Sanger sequencing,</p> <p>9 correct?</p> <p>10 A. Now, that's -- we're moving from this?</p> <p>11 Q. Yes.</p> <p>12 A. Okay, sorry, I thought we were still here.</p> <p>13 Q. Different question.</p> <p>14 A. Okay. Give me a --</p> <p>15 Q. Can you answer my question?</p> <p>16 A. What's the question?</p> <p>17 Q. The type of SNP changes that you report in your</p> <p>18 manuscript can be detected by Sanger sequencing,</p> <p>19 correct?</p> <p>20 A. Yes.</p> <p>21 Q. Did you use this method?</p> <p>22 A. No.</p> <p>23 Q. Have you ever used Sanger sequencing to detect changes</p> <p>24 in SNPs or to analyze SNPs?</p> <p>25 A. You mean gene mutations?</p>	<p>1 A. I believe we have published a different study with the</p> <p>2 same subject. You want me to look for it?</p> <p>3 Q. Not right now.</p> <p>4 A. Okay, but we did publish that before.</p> <p>5 Q. Did you measure changes in peroxide levels as part of</p> <p>6 your experiment?</p> <p>7 A. Excuse me, one more time.</p> <p>8 Q. Did you measure changes in peroxide levels as part of</p> <p>9 your experiments?</p> <p>10 A. What is peroxide level?</p> <p>11 Q. Hydrogen peroxide level.</p> <p>12 A. Oh, H2O2?</p> <p>13 Q. Yes.</p> <p>14 A. Indirectly, yes.</p> <p>15 Q. When you sat indirectly, what do you mean?</p> <p>16 A. Because it's the substrate for an enzyme, so it's an</p> <p>17 enzymatic reaction.</p> <p>18 Q. Did you find any changes in hydrogen peroxide levels in</p> <p>19 the talc treated cells?</p> <p>20 A. We didn't measure the actual H2O2 levels in these</p> <p>21 cells. We did measure the catalase activity that turns</p> <p>22 H2O2 to H2O, which is the turnover.</p> <p>23 Q. Have you ever measured hydrogen peroxide levels in</p> <p>24 these types of studies?</p> <p>25 A. Have I measured -- H2O2, I don't think so, directly,</p>
Page 259	Page 261
<p>1 Q. Gene mutations, yes.</p> <p>2 A. So the answer is nowadays no one does this from the</p> <p>3 research community. There are core facilities, labs</p> <p>4 that you send to. You don't need -- I don't believe</p> <p>5 people will in their laboratories that sit down and do</p> <p>6 experiments that takes forever. They just rather send</p> <p>7 it to this lab, we have -- every university have this,</p> <p>8 we have a core facility that you can send to, and then</p> <p>9 they will do it for you and they will give you the</p> <p>10 results, so you don't need to do it yourself.</p> <p>11 Q. Is Sanger sequencing considered more accurate than</p> <p>12 TaqMan?</p> <p>13 A. Pretty much I think they are the same level.</p> <p>14 Q. And you said you have used Sanger sequencing before?</p> <p>15 A. No, personally no.</p> <p>16 Q. What is the mechanism by which the SNP change, as you</p> <p>17 say, talc induces cause the redox changes that you</p> <p>18 report in your study?</p> <p>19 A. So talcum powder treatment increase, induces the</p> <p>20 specific mutations that are associated with altering</p> <p>21 the activity of the redox, the key oxidant enzymes that</p> <p>22 the results will be altering the oxidated balance.</p> <p>23 Q. And what studies show that?</p> <p>24 A. This study.</p> <p>25 Q. What studies besides your study, your manuscript?</p>	<p>1 directly H2O2 levels, no.</p> <p>2 Q. You've referred earlier to the fact that you have</p> <p>3 published abstracts that have talked about the results</p> <p>4 of the experiments we've marked as -- let me start</p> <p>5 again. You mentioned earlier that you published the</p> <p>6 results of the experiments documented in lab notebooks</p> <p>7 marked as Exhibits 2 and 3 in the past, correct?</p> <p>8 MS. O'DELL: Object to the form.</p> <p>9 BY MR. HEGARTY:</p> <p>10 Q. You didn't get that question?</p> <p>11 A. No.</p> <p>12 Q. You mentioned you had published the results of your</p> <p>13 experiments that we've been talking about here today in</p> <p>14 abstracts, correct?</p> <p>15 A. There was an SRI abstract that I presented at the SRI</p> <p>16 meeting March of '18, last year, that was reflected or</p> <p>17 involved this initial work that we did with Fisher with</p> <p>18 PCR.</p> <p>19 Q. And you also presented at an SGO meeting, correct?</p> <p>20 A. I believe I did.</p> <p>21 Q. In either case did you disclose that you were a</p> <p>22 consultant for plaintiffs counsel in litigation,</p> <p>23 correct?</p> <p>24 A. When you submit the abstract, they will not let you</p> <p>25 proceed until you -- yes, the answer is yes.</p>

Ghassan Saed, Ph.D.

Page 262	Page 264
<p>1 Q. The answer is that you did disclose?</p> <p>2 A. I did disclose, yes.</p> <p>3 Q. It's not included -- the disclosure's not included in</p> <p>4 the abstracts, correct.</p> <p>5 A. They don't have it like that, no.</p> <p>6 Q. When you presented the abstracts, did this involve</p> <p>7 standing there in front of a poster?</p> <p>8 A. Yes.</p> <p>9 Q. And did people come up and talk to you about your</p> <p>10 posters?</p> <p>11 A. Yes.</p> <p>12 Q. Did you identify yourself as an expert in litigation</p> <p>13 involving talc and ovarian cancer?</p> <p>14 MS. O'DELL: Object to the form.</p> <p>15 THE WITNESS: No one asked me.</p> <p>16 BY MR. HEGARTY:</p> <p>17 Q. Did you tell them that you were?</p> <p>18 A. I didn't volunteer anything.</p> <p>19 Q. Have you provided your opinions in this case to anyone</p> <p>20 outside of plaintiff's counsel or your colleagues on</p> <p>21 the manuscript?</p> <p>22 MS. O'DELL: Object to the form.</p> <p>23 THE WITNESS: So you just asked me if I</p> <p>24 discussed this with people that I presented to in the</p> <p>25 whole meeting.</p>	<p>1 specific.</p> <p>2 Q. Are your opinions in this case premised on talc</p> <p>3 containing asbestos?</p> <p>4 A. (Witness shakes head from side to side.) I don't know,</p> <p>5 no, my opinion has nothing to do with that.</p> <p>6 Q. Are your opinions in any way based on talc having heavy</p> <p>7 metals in them?</p> <p>8 A. No.</p> <p>9 Q. Is it your opinion that talc without asbestos or</p> <p>10 without any other constituents can cause ovarian</p> <p>11 cancer?</p> <p>12 A. The one that I got in this bottle from J & J, yes.</p> <p>13 Q. Is it your opinion, Doctor, that your studies or your</p> <p>14 experiments show that talc increases cellular</p> <p>15 proliferation and decreases apoptosis?</p> <p>16 A. I'm sorry, one more time, one more time.</p> <p>17 Q. Sure. Is it your opinions or is it your opinion that</p> <p>18 talc use increases cellular proliferation and decreases</p> <p>19 apoptosis in normal ovarian cells?</p> <p>20 A. My finding clearly indicates that if you treat cells</p> <p>21 with talcum powder, the results of this treatment is a</p> <p>22 dose response increase in proliferation and decrease in</p> <p>23 apoptosis, yes.</p> <p>24 Q. In normal ovarian cells?</p> <p>25 A. In normal and in cancer cells.</p>
Page 263	Page 265
<p>1 BY MR. HEGARTY:</p> <p>2 Q. Well, let me ask it a different way because I can see</p> <p>3 where you're confused. We talked about your opinions</p> <p>4 that talc can cause ovarian cancer.</p> <p>5 A. Oh, so we're going back here now?</p> <p>6 Q. Yes, we're going back to your opinions.</p> <p>7 A. Okay.</p> <p>8 Q. Have you ever told anyone at the medical school, at</p> <p>9 Wayne State Medical School that talc use can cause</p> <p>10 ovarian cancer?</p> <p>11 A. I don't recall.</p> <p>12 Q. Have you ever told anyone at Wayne State School of</p> <p>13 Medicine that talc use can worsen the prognosis of</p> <p>14 ovarian cancer?</p> <p>15 A. Again, I don't recall. I don't remember.</p> <p>16 Q. Can you tell for me, when you say you can't recall</p> <p>17 having had a discussion with anyone --</p> <p>18 A. I can't remember that I said that.</p> <p>19 Q. Can you cite for me anyone that you've spoken with at</p> <p>20 the Wayne State School of Medicine where you've told</p> <p>21 them your opinions that talc use can cause ovarian</p> <p>22 cancer or can worsen ovarian cancer?</p> <p>23 A. Other than the co-authors of this study?</p> <p>24 Q. Yes.</p> <p>25 A. I haven't talked to anyone, in my school, to be</p>	<p>1 Q. Cell proliferation does not mean cancer, correct?</p> <p>2 A. Cell -- increase in cell proliferation beyond normal is</p> <p>3 a highlight of cancer cells.</p> <p>4 Q. There is cell proliferation in normal cells in the</p> <p>5 absence of cancer, correct?</p> <p>6 A. So good question. So cell -- normal cells in response</p> <p>7 to agents can be temporally transit induces their</p> <p>8 proliferation, but they come back. Cancer cells don't</p> <p>9 come back. They will proliferate forever.</p> <p>10 Q. But you agree that cell proliferation does not equate</p> <p>11 to cancer?</p> <p>12 A. Okay, I am answering you. According to my knowledge,</p> <p>13 transit, transit or let's say temporary or initial</p> <p>14 induction of proliferation, it is a normal response of</p> <p>15 all normal cells to agents. If this response</p> <p>16 continues, now, this is a hallmark of cancer. It is</p> <p>17 indication that this cell is going that route.</p> <p>18 Q. In the tests you conducted, the results would be</p> <p>19 considered an acute response to talc, correct?</p> <p>20 MS. O'DELL: Object to the form.</p> <p>21 THE WITNESS: Yes, I understand. In cell</p> <p>22 culture you cannot distinguish between acute response</p> <p>23 versus chronic response. In cell culture you cannot do</p> <p>24 that. So in cell culture it is a response.</p> <p>25 Q. That you cannot say would occur in a chronic way?</p>

67 (Pages 262 to 265)

Ghassan Saed, Ph.D.

Page 266	Page 268
<p>1 MS. O'DELL: Objection.</p> <p>2 THE WITNESS: I don't know if this -- okay,</p> <p>3 here's the question, so the answer is you expose cells,</p> <p>4 talcum powder, cells go crazy and they increase their</p> <p>5 proliferation. If they don't come back, so that's the</p> <p>6 response to the acute, if they don't come back and</p> <p>7 there is talcum powder particles in there, and they</p> <p>8 keep provoking the inflammation, that transit goes into</p> <p>9 chronic inflammation. I'm trying to think of</p> <p>10 simulation to in vivo, but in cell culture you cannot</p> <p>11 tell.</p> <p>12 BY MR. HEGARTY:</p> <p>13 Q. Can you cite for me any studies showing increase in</p> <p>14 cell proliferation in the presence of talc in vivo?</p> <p>15 MS. O'DELL: Objection, form.</p> <p>16 THE WITNESS: Very complicated question,</p> <p>17 break it down for me, please.</p> <p>18 BY MR. HEGARTY:</p> <p>19 Q. I don't know if I can break it down. Can you cite for</p> <p>20 me any study showing an increase in cell proliferation</p> <p>21 in the presence of talc in women using talc?</p> <p>22 A. How would you measure --</p> <p>23 MS. O'DELL: Objection.</p> <p>24 THE WITNESS: How would you measure cell</p> <p>25 proliferation in woman?</p>	<p>1 contaminant decrease in apoptosis is a hallmark of</p> <p>2 ovarian cancer.</p> <p>3 BY MR. HEGARTY:</p> <p>4 Q. Not my question, Doctor. My question was are there any</p> <p>5 studies showing that an increase in cell proliferation,</p> <p>6 as you showed in your experiments, is associated with</p> <p>7 an increase in ovarian cancer risk?</p> <p>8 MS. O'DELL: Object to the form, asked and</p> <p>9 answered.</p> <p>10 THE WITNESS: Okay, so you're asking if there</p> <p>11 are reports showing that there is the increased</p> <p>12 proliferation is associated with increased cancer risk?</p> <p>13 BY MR. HEGARTY:</p> <p>14 Q. Correct.</p> <p>15 A. Okay, again, I'm answering, the answer is I don't know</p> <p>16 because I believe that you cannot measure proliferation</p> <p>17 in vivo.</p> <p>18 Q. Are there any studies showing that a decrease in</p> <p>19 apoptosis, as you showed in your experiments, is</p> <p>20 associated with an increase in ovarian cancer risk?</p> <p>21 A. So I would respond the same way. I would say, again,</p> <p>22 these -- to determine apoptosis, you have to isolate</p> <p>23 the cells from the patient outside and do cell culture</p> <p>24 and look into that, so I'm not aware.</p> <p>25 Q. Are there any studies showing either an increase in</p>
Page 267	Page 269
<p>1 BY MR. HEGARTY:</p> <p>2 Q. Well, I'm asking you if you're aware of any such</p> <p>3 studies?</p> <p>4 A. I'm answering. I said how would you measure that? I'm</p> <p>5 not aware, I don't know.</p> <p>6 Q. Are you aware of any studies showing a decrease in</p> <p>7 apoptosis in the cells of women using talc?</p> <p>8 A. Again, these studies only done in cell culture. You</p> <p>9 cannot do this in vivo. This has to be isolated from</p> <p>10 the woman of ovarian cancer who use talc, who didn't</p> <p>11 use talc, and then you look at their cells in culture</p> <p>12 to determine those parameters. You cannot determine</p> <p>13 those in vivo. Although there are pathology they can</p> <p>14 do, they can do proliferation markers like KI67, it's</p> <p>15 been done, it's all over, there are indications, but</p> <p>16 they cannot do this in vivo. This has been done in</p> <p>17 tissues. With woman, yes, you can do it, but to do</p> <p>18 that you have to isolate the cells and then look at the</p> <p>19 cell response.</p> <p>20 Q. Are there any studies showing that an increase in cell</p> <p>21 proliferation, as you showed in your experiments, is</p> <p>22 associated with an increase in ovarian cancer risk?</p> <p>23 MS. O'DELL: Object to the form.</p> <p>24 THE WITNESS: There are several studies that</p> <p>25 shows that enhanced proliferation and reduce with</p>	<p>1 cell proliferation or a decrease in apoptosis as you</p> <p>2 have shown in your report in women using talc?</p> <p>3 MS. O'DELL: Object to the form.</p> <p>4 THE WITNESS: I'm not aware of that.</p> <p>5 MR. HEGARTY: Why don't we take a break, go</p> <p>6 off the record. I need to converse with counsel for</p> <p>7 Imerys about how much time that he needs for his</p> <p>8 questioning.</p> <p>9 MS. O'DELL: Okay.</p> <p>10 THE VIDEOGRAPHER: Going off the record at</p> <p>11 5:04 p.m.</p> <p>12 (A short recess was taken.)</p> <p>13 THE VIDEOGRAPHER: We're back on the record at</p> <p>14 5:26 p.m.</p> <p>15 BY MR. HEGARTY:</p> <p>16 Q. Doctor, in your cell experiments, how did you control</p> <p>17 for cross-contamination?</p> <p>18 MS. O'DELL: I'm sorry, I didn't hear, for</p> <p>19 cross-contamination?</p> <p>20 MR. HEGARTY: Yes.</p> <p>21 THE WITNESS: Cross-contamination, so cross-</p> <p>22 contamination from each -- from the cells that I used?</p> <p>23 BY MR. HEGARTY:</p> <p>24 Q. How did you control to keep from mixing up of samples?</p> <p>25 MS. O'DELL: Object to the form.</p>

68 (Pages 266 to 269)

Ghassan Saed, Ph.D.

Page 270	Page 272
<p>1 THE WITNESS: I'm not sure that I understood</p> <p>2 your question. Are you referring to mixing the two</p> <p>3 cell lines, for example?</p> <p>4 BY MR. HEGARTY:</p> <p>5 Q. Yes.</p> <p>6 A. With each other?</p> <p>7 Q. Correct.</p> <p>8 A. That's not possible.</p> <p>9 Q. Why is that not possible?</p> <p>10 A. Because each cell line is done in one experiment</p> <p>11 treatment with all the doses on its own.</p> <p>12 Q. What about mixing normal cells with the -- I'm sorry,</p> <p>13 how about mixing control cells with the treated cells,</p> <p>14 is that possible?</p> <p>15 A. What do you mean by control cells, not treated?</p> <p>16 Q. Not treated?</p> <p>17 A. So, also, that's not possible because you -- we divide,</p> <p>18 we grow the cells, one lot, one lot of cells, and then</p> <p>19 we aliquot, we put 1 million cells here, 1 ml cells</p> <p>20 here, and then we separate them and give the different</p> <p>21 doses for each cell lines. And the -- this thing, the</p> <p>22 treatment was repeated for PCR for RNA, for protein for</p> <p>23 ELISA, for proliferation assays, so it's not possible</p> <p>24 that there is a mix between treated and untreated.</p> <p>25 Q. Do you know what positive and negative controls are in</p>	<p>1 There's two different controls, okay. We did negative</p> <p>2 and positive for the treatment, so this is with talc,</p> <p>3 this is with no talc. For the markers, for the</p> <p>4 markers, we have standards that with serial dilution</p> <p>5 tells you exactly how much you expect to get in there.</p> <p>6 Q. Did you use a negative control in your cell studies</p> <p>7 with a known inert substance?</p> <p>8 MS. O'DELL: Object to the form.</p> <p>9 THE WITNESS: That's not a negative control</p> <p>10 to me, it does not apply to my study. The only</p> <p>11 negative control that applies to my study is talc with</p> <p>12 no talc.</p> <p>13 BY MR. HEGARTY:</p> <p>14 Q. How can you rule out in your studies that any</p> <p>15 particulate you added to the cell cultures would cause</p> <p>16 the same thing?</p> <p>17 A. Again, we tested several fold. So our study does not</p> <p>18 qualify for a positive positive control that you're</p> <p>19 referring to or a negative negative control.</p> <p>20 Q. How are you able to rule out that glass beads wouldn't</p> <p>21 cause the same --</p> <p>22 A. Glass beads?</p> <p>23 Q. -- effect? How are you able to rule out that some</p> <p>24 inert part, other part -- strike that. How would you</p> <p>25 rule out that any particle wouldn't cause the same</p>
Page 271	Page 273
<p>1 cell studies?</p> <p>2 A. I do.</p> <p>3 Q. You did not use positive and negative controls in your</p> <p>4 cell studies, correct?</p> <p>5 A. Not correct.</p> <p>6 Q. Well, I'm going to define positive controls as applying</p> <p>7 a known cancer causing substance to the cells. Is that</p> <p>8 your understanding of positive control?</p> <p>9 A. Not in these studies.</p> <p>10 Q. I'm talking about generally.</p> <p>11 A. Generally a positive control that something that you</p> <p>12 know it's there and you're looking for it.</p> <p>13 Q. What is in general terms a negative control?</p> <p>14 A. A negative control, something you're not looking for,</p> <p>15 it is not there.</p> <p>16 Q. Well --</p> <p>17 A. So there is negative negative and there is positive</p> <p>18 positive.</p> <p>19 Q. Did you do any of your tests -- I'm sorry, did you do</p> <p>20 any of your experiments using any substances known to</p> <p>21 be a carcinogen?</p> <p>22 A. One more time. I will answer you. The answer is no,</p> <p>23 okay, but you're referring to -- so there are two</p> <p>24 different controls, negative and positive for the</p> <p>25 target, and negative and positive for the treatment.</p>	<p>1 effect that you saw in your studies?</p> <p>2 A. Very simple, the untreated didn't show that.</p> <p>3 Q. Well, how do you rule out that the treated cells would</p> <p>4 react the same way regardless of what you put on them?</p> <p>5 In other words, if you put -- how did you rule out that</p> <p>6 any particle would not cause the same thing if you</p> <p>7 mixed it with DMSO and applied it to talc?</p> <p>8 A. Yeah, so we did DMSO control.</p> <p>9 MS. O'DELL: Object to the form.</p> <p>10 THE WITNESS: So we did -- took the talc,</p> <p>11 mixed it with DMSO, took the DMSO, treat the cells with</p> <p>12 DMSO alone and with DMSO and talc. So if the effect</p> <p>13 was due to DMSO, you would see the response in the</p> <p>14 untreated cells.</p> <p>15 BY MR. HEGARTY:</p> <p>16 Q. Would cornstarch cause the same result?</p> <p>17 A. I did not test it.</p> <p>18 Q. How can you rule out that cornstarch wouldn't do the</p> <p>19 same thing if applied to cells?</p> <p>20 MS. O'DELL: Object to the form.</p> <p>21 THE WITNESS: I didn't rule anything, I did</p> <p>22 not test it.</p> <p>23 BY MR. HEGARTY:</p> <p>24 Q. Does cornstarch cause cancer?</p> <p>25 A. I did not test it.</p>

Ghassan Saed, Ph.D.

<p style="text-align: right;">Page 274</p> <p>1 Q. Well, in your opinion, does --</p> <p>2 A. In my opinion?</p> <p>3 Q. Yes.</p> <p>4 A. From my information? I don't think so.</p> <p>5 Q. Could you have tested cornstarch in the same way you</p> <p>6 tested talc?</p> <p>7 A. Could I have?</p> <p>8 Q. Yes.</p> <p>9 A. I can use my methodology to test that, yes, of course.</p> <p>10 Q. And are you able to say that no other particle exposed</p> <p>11 in the same way that you would expose cells with talc</p> <p>12 would not have caused the same result?</p> <p>13 MS. O'DELL: Object to the form.</p> <p>14 THE WITNESS: I already answered.</p> <p>15 BY MR. HEGARTY:</p> <p>16 Q. What's your answer?</p> <p>17 A. Okay, I'm saying that in this study, the way this</p> <p>18 study's designed to look at the effect with talc,</p> <p>19 without talc, if you are looking at one marker only,</p> <p>20 then maybe we should consider more, but we're looking</p> <p>21 at several markers at several levels. So we're looking</p> <p>22 at mRNA DNA mRNA protein activity, several levels here.</p> <p>23 Q. But you cannot say that cornstarch wouldn't do the same</p> <p>24 thing as talc did in your experiments?</p> <p>25 A. I did not study cornstarch, so I cannot tell you.</p>	<p style="text-align: right;">Page 276</p> <p>1 A. I didn't say I did not agree. I said I am not -- I</p> <p>2 don't have any molecular data in my laboratory to</p> <p>3 support the direct effect of talcum powder on my</p> <p>4 markers that I studied in my lab, and I would like to</p> <p>5 do that.</p> <p>6 Q. When in relation to the first call that you had with</p> <p>7 Miss Thompson did you agree to serve as a consultant</p> <p>8 for Beasley Allen?</p> <p>9 A. I think it was like October sometime.</p> <p>10 Q. And in between the time of the first call and October,</p> <p>11 did you have any additional calls with anyone from --</p> <p>12 A. We had the meeting September 7, if I remember.</p> <p>13 Q. At the time of that meeting, had you agreed to serve as</p> <p>14 a consultant for Beasley Allen?</p> <p>15 A. I agreed in principle to serve as a consultant for what</p> <p>16 I am an expert in, which is oxidative stress and</p> <p>17 ovarian cancer, and I promised to run data, do some</p> <p>18 work, because I wanted to find out if there is</p> <p>19 molecular evidence to support the effect of talcum</p> <p>20 powder on the markers that I study, which are the</p> <p>21 markers of risk of ovarian cancer.</p> <p>22 Q. And you agreed to serve as a consultant, at least as to</p> <p>23 oxidative stress and ovarian cancer, as of the time of</p> <p>24 the meeting in September?</p> <p>25 MS. O'DELL: Object as to form.</p>
<p style="text-align: right;">Page 275</p> <p>1 Q. We talked earlier at the beginning of the deposition</p> <p>2 about you receiving a call from Miss Thompson, correct?</p> <p>3 A. Yes.</p> <p>4 Q. Do you know how she came to call you in the first</p> <p>5 place?</p> <p>6 A. From according to her?</p> <p>7 Q. Yes.</p> <p>8 A. Or according to me?</p> <p>9 Q. Well, what is your understanding as to why she</p> <p>10 initiated that initial call, how she came to get your</p> <p>11 name?</p> <p>12 A. She found me on what do you call it -- Med Web, because</p> <p>13 I had published this review article in this very</p> <p>14 prestigious journal called OB-GYN Oncology. Want to</p> <p>15 let me finish?</p> <p>16 MS. O'DELL: Yes, you may finish.</p> <p>17 BY MR. HEGARTY:</p> <p>18 Q. Are you finished?</p> <p>19 A. No.</p> <p>20 Q. How much more is there?</p> <p>21 A. Okay --</p> <p>22 MS. O'DELL: You may finish, Doctor.</p> <p>23 BY MR. HEGARTY:</p> <p>24 Q. You mentioned that you did not agree to serve as a</p> <p>25 consultant at the time of the first call, correct?</p>	<p style="text-align: right;">Page 277</p> <p>1 THE WITNESS: I agreed to serve as a</p> <p>2 consultant for oxidative stress and ovarian cancer in</p> <p>3 actually the first phone call.</p> <p>4 BY MR. HEGARTY:</p> <p>5 Q. With regard to your work in this litigation, have you</p> <p>6 reviewed any of the expert reports of any other experts</p> <p>7 designated by plaintiffs?</p> <p>8 A. Barely I remember one or two, just briefly. I don't</p> <p>9 even remember names.</p> <p>10 Q. Have you reviewed, for purposes of your opinions in</p> <p>11 this case, anything that you did not bring with you</p> <p>12 here today?</p> <p>13 A. Good question, no.</p> <p>14 Q. Are there any necessary changes to your expert report?</p> <p>15 A. As --</p> <p>16 Q. As you sit here today.</p> <p>17 A. As of now today, no.</p> <p>18 Q. Have you ever had your deposition taken before?</p> <p>19 A. No.</p> <p>20 Q. Have you ever been designated to serve as an expert</p> <p>21 witness in any lawsuit?</p> <p>22 A. No.</p> <p>23 Q. You are not a medical doctor, correct?</p> <p>24 A. No.</p> <p>25 Q. You brought with you a copy of your updated CV; is that</p>

Ghassan Saed, Ph.D.

Page 278	Page 280
<p>1 correct?</p> <p>2 A. Correct.</p> <p>3 Q. Yes. I'm going to mark this Exhibit Number 18.</p> <p>4 SAED DEPOSITION EXHIBIT NUMBER 18,</p> <p>5 CURRICULUM VITAE,</p> <p>6 WAS MARKED BY THE REPORTER</p> <p>7 FOR IDENTIFICATION</p> <p>8 BY MR. HEGARTY:</p> <p>9 Q. The CV you brought with you today, is that your current</p> <p>10 curriculum vitae?</p> <p>11 A. Yes.</p> <p>12 Q. Okay. Thank you. You don't treat ovarian cancer</p> <p>13 patients, correct?</p> <p>14 A. I am not an M.D., I'm not a medical doctor.</p> <p>15 Q. Do you teach any courses?</p> <p>16 A. In the university, yes.</p> <p>17 Q. What courses do you teach?</p> <p>18 A. They are listed here in my CV.</p> <p>19 Q. Listed in your CV?</p> <p>20 A. Yes.</p> <p>21 Q. Do you teach medical students?</p> <p>22 A. I do.</p> <p>23 Q. Those would be listed in your CV?</p> <p>24 A. Everything I teach is listed here.</p> <p>25 Q. What percentage of your time is spent teaching?</p>	<p>1 and ovarian cancer for purposes of developing your</p> <p>2 opinions in this case?</p> <p>3 A. To my best knowledge, yes, only like three papers out</p> <p>4 there.</p> <p>5 Q. I'm sorry?</p> <p>6 A. There are only like three papers out there that I can</p> <p>7 remember.</p> <p>8 Q. Did you do a search yourself for literature concerning</p> <p>9 talc and ovarian cancer?</p> <p>10 A. Yes.</p> <p>11 Q. What search engines or tools did you use?</p> <p>12 A. I used what I always use, the PopMed.</p> <p>13 Q. You say in your report that an enhanced redox state has</p> <p>14 been described with epithelial ovarian cancer.</p> <p>15 A. I'm sorry, one more time.</p> <p>16 Q. Is it your opinion that an enhanced redox state has</p> <p>17 been described in patients with epithelial ovarian</p> <p>18 cancer?</p> <p>19 A. With ovarian cancer patients, yes.</p> <p>20 Q. And enhanced redox state has been described with other</p> <p>21 types of cancer, too, correct? It's not unique to</p> <p>22 ovarian cancer?</p> <p>23 A. Okay, I don't know about other cancer, that's not my --</p> <p>24 what I do. What I do, what I talk about, what I work</p> <p>25 with is ovarian cancer. So we did work in my lab only</p>
Page 279	Page 281
<p>1 A. Okay, so we have two types of teaching in our</p> <p>2 institution they consider teaching. We have formal</p> <p>3 courses and then we have hands-on teaching, which is</p> <p>4 required for our residency program and fellowship</p> <p>5 program. I do more of the hands-on for the medical</p> <p>6 doctors for our residents and fellows in the</p> <p>7 department, then I help them write their thesis, design</p> <p>8 their experiments, do the work, so that's my primary --</p> <p>9 I spend almost significant time. I can't tell you</p> <p>10 exactly what I spend on that part, but I do.</p> <p>11 Q. Have you applied to be a full professor at Wayne State</p> <p>12 University?</p> <p>13 A. No.</p> <p>14 Q. Why not?</p> <p>15 A. Applying for a full professor at our institution</p> <p>16 requires current NIH NCI only funding, which is very</p> <p>17 hard to get these days.</p> <p>18 Q. Is it your opinion that talc induces chemoresistance?</p> <p>19 A. Talc induces chemoresistance -- so we -- I have not</p> <p>20 tested that, so this needs to be tested.</p> <p>21 Q. In connection with developing and setting out your</p> <p>22 opinions in this case, did you review all of the animal</p> <p>23 literature looking at talc and ovarian cancer?</p> <p>24 A. All of the literature, no.</p> <p>25 Q. Did you review all of the cell studies looking at talc</p>	<p>1 with ovarian cancer and these markers.</p> <p>2 Q. Has an enhanced redox state been described with other</p> <p>3 diseases besides cancer?</p> <p>4 A. One more time, please.</p> <p>5 MS. O'DELL: Object to form.</p> <p>6 BY MR. HEGARTY:</p> <p>7 Q. Has an enhanced redox state been described with</p> <p>8 diseases other than cancer?</p> <p>9 A. I don't know.</p> <p>10 Q. You have done research looking at that pathogenesis of</p> <p>11 tissue fibrosis, correct?</p> <p>12 A. Correct.</p> <p>13 Q. Tissue fibrosis does not increase the risk of</p> <p>14 developing cancer, correct?</p> <p>15 A. Not correct.</p> <p>16 Q. So it's your opinion that having -- that fibrosis</p> <p>17 increases the risk of cancer?</p> <p>18 A. Not correct, that's not my opinion.</p> <p>19 Q. What is your opinion with regard to the relationship</p> <p>20 between fibrosis and cancer?</p> <p>21 A. Good, I like that question. So initially when I</p> <p>22 started all this work, I was interested in tissue</p> <p>23 fibrosis and, in particular, keloids, hypertrophic</p> <p>24 scars, postoperative adhesions development, and</p> <p>25 fibroids, endometriosis, trying to answer one question</p>

71 (Pages 278 to 281)

Ghassan Saed, Ph.D.

Page 282	Page 284
<p>1 in my mind, which is -- which started this whole focus</p> <p>2 of work, why, how come we have an overgrowth that is --</p> <p>3 has similar pathogenesis, yet it's not malignant, for</p> <p>4 example, fibroids, they're benign tumors, they're</p> <p>5 tumors, they're benign, what is the difference between</p> <p>6 what makes this tumor benign versus malignant? So this</p> <p>7 is my focus and my long-term interest in my life is to</p> <p>8 figure out why is this overgrowth that has oxidative</p> <p>9 stress, high this, high this, high this, but it's not</p> <p>10 malignant, fibroids, possibility of adhesions, keloids,</p> <p>11 although some keloids develop -- some fibrosis</p> <p>12 development of cancer, and endometriosis, for example.</p> <p>13 So that's the question that I'm really interested in.</p> <p>14 So that's why we look everything in comparison. I have</p> <p>15 published in here and I have published in here</p> <p>16 extensively.</p> <p>17 Q. You have published that fibrosis causes cancer?</p> <p>18 A. No, I have published that the process of fibrosis is</p> <p>19 very similar to the process of oncogenesis.</p> <p>20 Q. Does fibrosis cause cancer?</p> <p>21 MS. O'DELL: Object to form.</p> <p>22 THE WITNESS: In some cases it may.</p> <p>23 BY MR. HEGARTY:</p> <p>24 Q. Give me an example of a type of fibrosis that can cause</p> <p>25 cancer.</p>	<p>1 postoperative adhesions development may develop into</p> <p>2 cancer. I'm not aware of that.</p> <p>3 BY MR. KLATT:</p> <p>4 Q. You're not aware of any evidence of that, is that what</p> <p>5 you're saying?</p> <p>6 A. I'm not aware of a certain -- a specific situation</p> <p>7 where a patient developed postoperative adhesions, that</p> <p>8 postoperative adhesions causes some type of cancer</p> <p>9 somewhere.</p> <p>10 Q. I'm going to skip around just to follow up on some</p> <p>11 stuff that Mr. Hegarty brought up during the day. You</p> <p>12 mentioned your company DS Biotech this morning. What</p> <p>13 does DS stand for?</p> <p>14 A. A name I chose.</p> <p>15 Q. The D and the S don't stand for anything in particular?</p> <p>16 A. Oh, sorry, I missed the question. So D is Diamond Saed</p> <p>17 Biotech, that's my partner, used to be long time ago.</p> <p>18 Q. You had a partner named Diamond?</p> <p>19 A. Michael Diamond. When we first initiated this, we</p> <p>20 started it, but then he moved from my institution to</p> <p>21 his institution, and then I acquired the whole company.</p> <p>22 Q. So Dr. Diamond -- is it a Dr. Diamond?</p> <p>23 A. Dr. Diamond, yes.</p> <p>24 Q. He has no affiliation with DS Biotech any longer, is</p> <p>25 that true?</p>
Page 283	Page 285
<p>1 A. Keloids, fibroblastoma can develop, endometriosis can</p> <p>2 induce maybe ovarian cancer, there's a link between the</p> <p>3 two.</p> <p>4 Q. Do postoperative adhesions cause cancer?</p> <p>5 A. We don't know.</p> <p>6 Q. Doctor, I'm going to rest for a moment and let my</p> <p>7 colleague representing Imerys ask you some questions as</p> <p>8 well.</p> <p>9 EXAMINATION BY MR. KLATT:</p> <p>10 Q. Hello, Dr. Saed. My name is Mike Klatt and I represent</p> <p>11 Imerys Talc America in this case. Have you ever heard</p> <p>12 of Imerys Talc America before today?</p> <p>13 A. Heard on the news, yes.</p> <p>14 Q. I'm sorry?</p> <p>15 A. Heard about it, yes.</p> <p>16 Q. What do you know about Imerys?</p> <p>17 A. I know that very small thing, mining company.</p> <p>18 Q. How did you learn that?</p> <p>19 A. From the news.</p> <p>20 Q. You said just a minute ago that we don't know whether</p> <p>21 postoperative intra-abdominal adhesions cause cancer;</p> <p>22 is that true?</p> <p>23 A. I am not aware --</p> <p>24 MS. O'DELL: Object to the form.</p> <p>25 THE WITNESS: -- that incidence of</p>	<p>1 A. No, for the last even seven, eight years.</p> <p>2 Q. When's the last time you had an NIH NCI grant?</p> <p>3 A. It should be in my CV, really bad memory, although I</p> <p>4 should remember such a great thing. You want me to</p> <p>5 look for it?</p> <p>6 Q. How long's it going to take you?</p> <p>7 A. I don't know, I have to look in my list of grants --</p> <p>8 when was it, when was it -- do you want me to</p> <p>9 approximate?</p> <p>10 Q. Sure.</p> <p>11 A. NIH -- I think it's 2005 -- pending, submitted --</p> <p>12 previously funded, okay, here we go. So I was part of</p> <p>13 the -- I was co-principal investigator in the Wayne</p> <p>14 State University partnership to promote diversity for</p> <p>15 reproductive sciences, that was 3,020,000 something. I</p> <p>16 was a co-investigator with Dr. Michael Diamond as a</p> <p>17 principal investigator to this Wayne State Clinical</p> <p>18 Translational Science Award.</p> <p>19 Q. What year is the question?</p> <p>20 A. So there are many, 2015, 2012, 2012, 2012, this was the</p> <p>21 major one where I was the principal investigator</p> <p>22 looking for adhesions and the role of hypoxia, and that</p> <p>23 was 2012.</p> <p>24 Q. What level NIH grant was that?</p> <p>25 A. That's an RO1.</p>

Ghassan Saed, Ph.D.

Page 286	Page 288
<p>1 Q. Can ovulation cause the DNA damage that results in</p> <p>2 ovarian cancer?</p> <p>3 A. You are asking my opinion?</p> <p>4 Q. Yes.</p> <p>5 A. Or my -- based on science?</p> <p>6 Q. Well, I hope your opinion's based on science, but what</p> <p>7 is your opinion?</p> <p>8 A. Okay. So ovulation theory has been there for a long</p> <p>9 time, and I don't know if there is a link between</p> <p>10 ovulation and damage to DNA particular to that.</p> <p>11 Q. Is ovulation an inflammatory event?</p> <p>12 A. It is.</p> <p>13 Q. And in a woman that has a normal reproductive life,</p> <p>14 that can occur 2, 400 times in her lifetime, correct?</p> <p>15 A. I am not a reproductive scientist.</p> <p>16 Q. You don't know?</p> <p>17 A. I don't know.</p> <p>18 Q. Woman that has a 40-year reproductive life times 12?</p> <p>19 A. I do know that.</p> <p>20 Q. That's 480 ovulatory cycles, correct?</p> <p>21 A. If you say so, I don't know.</p> <p>22 Q. You don't know about this?</p> <p>23 A. I do know --</p> <p>24 MS. O'DELL: Object to the form.</p> <p>25 THE WITNESS: Excuse me, okay, I am not --</p>	<p>1 A. Not correct.</p> <p>2 Q. You don't know that?</p> <p>3 MS. O'DELL: Object to the form.</p> <p>4 THE WITNESS: It's a theory; I just answered</p> <p>5 you.</p> <p>6 BY MR. KLATT:</p> <p>7 Q. Are you aware of the data that lifetime ovulations is</p> <p>8 directly related to ovarian cancer risk?</p> <p>9 MS. O'DELL: Object to the form.</p> <p>10 THE WITNESS: So do you mean that there are</p> <p>11 data out there that is showing a direct link to normal</p> <p>12 ovulation process and the development -- increased risk</p> <p>13 of getting ovarian cancer?</p> <p>14 BY MR. KLATT:</p> <p>15 Q. Thank you.</p> <p>16 MR. LAPINSKI: Doctor, was that an answer or</p> <p>17 a question?</p> <p>18 THE WITNESS: That was a question to you.</p> <p>19 BY MR. KLATT:</p> <p>20 Q. Well, I'm asking the questions, you're giving me the</p> <p>21 answers. Are you aware of data that increased number</p> <p>22 of lifetime ovulations increases ovarian cancer risk?</p> <p>23 MS. O'DELL: Object to the form.</p> <p>24 THE WITNESS: And then I answered you, I</p> <p>25 answered you, if you mean that you're looking for</p>
Page 287	Page 289
<p>1 again, I am not a reproductive scientist, so I know as</p> <p>2 much as anybody know, like ovulation, yes, I do know</p> <p>3 about it, I know about the ovulation theory, I know</p> <p>4 that ovulation is cause of inflammation, I do know all</p> <p>5 that.</p> <p>6 BY MR. HEGARTY:</p> <p>7 Q. And is it your opinion, as a scientist who studied in</p> <p>8 the field you studied, that ovulation can cause ovarian</p> <p>9 cancer?</p> <p>10 A. I don't know, it needs to be tested.</p> <p>11 Q. Even though it's an inflammatory event that occurs</p> <p>12 every month, correct?</p> <p>13 A. Maybe that's a natural inflammatory response.</p> <p>14 Q. But you don't know, one way or the other, correct?</p> <p>15 A. Yeah, there's a big difference between a naturally-</p> <p>16 induced inflammatory response versus an external</p> <p>17 exogenous induced inflammation.</p> <p>18 Q. Certainly you're aware it's the opinion of many in the</p> <p>19 field that incessant ovulation does cause ovarian</p> <p>20 cancer, correct.</p> <p>21 A. That was just a theory.</p> <p>22 Q. I'm sorry?</p> <p>23 A. A theory.</p> <p>24 Q. And certainly ovarian cancer risk is directly related</p> <p>25 to number of lifetime ovulations, correct?</p>	<p>1 specific data that linking normal ovulation to</p> <p>2 inflammation that causes or increases the risk of</p> <p>3 ovarian cancer, is that what you mean?</p> <p>4 BY MR. KLATT:</p> <p>5 Q. I'm simply asking you if you're aware of data that</p> <p>6 number of lifetime or of ovulations correlates with</p> <p>7 increased ovarian cancer risk; that's all I'm asking.</p> <p>8 A. My answer again, I'm aware that this is a theory, and I</p> <p>9 don't know if it's based on data.</p> <p>10 Q. Is the mechanism that causes post-surgical adhesions</p> <p>11 the same mechanism that you think can result in ovarian</p> <p>12 cancer?</p> <p>13 A. No, they have similarities but not the same.</p> <p>14 Q. Can oxidative stress be induced by low vitamin E?</p> <p>15 A. I don't know.</p> <p>16 Q. Can oxidative stress be induced by low vitamin C?</p> <p>17 A. I don't know.</p> <p>18 Q. Can oxidative stress be induced by low uric acid?</p> <p>19 A. We never tested that.</p> <p>20 Q. Can oxidative stress be induced by albumin levels?</p> <p>21 A. We never tested that.</p> <p>22 Q. You said you'd never given a deposition before,</p> <p>23 correct?</p> <p>24 A. Correct.</p> <p>25 Q. And you've also never testified in a court before, is</p>

Ghassan Saed, Ph.D.

Page 290	Page 292
<p>1 that right?</p> <p>2 A. Correct.</p> <p>3 Q. Early this morning you said that high, very high doses</p> <p>4 of talc were toxic to cells. What did you mean by</p> <p>5 that?</p> <p>6 A. We tried 1,000 micrograms per ml, 1,000 micrograms per</p> <p>7 ml, induced toxicity, so decreased viability, yes.</p> <p>8 Q. How are you defining toxicity at this time?</p> <p>9 A. Decreases cell viability.</p> <p>10 Q. Does that mean decrease in cell number?</p> <p>11 A. No, I said cell viability.</p> <p>12 Q. What does that mean?</p> <p>13 A. Death.</p> <p>14 Q. Okay.</p> <p>15 A. Okay.</p> <p>16 Q. Do you agree with me that CA-125 levels can be</p> <p>17 increased or elevated by pregnancy?</p> <p>18 A. I don't know this information.</p> <p>19 Q. Can CA-125 levels be increased during the menstrual</p> <p>20 period?</p> <p>21 A. I am not an OB-GYN oncologist, I am not an expert in</p> <p>22 this. I defer this to a clinician.</p> <p>23 Q. Can CA-125 levels be increased by women who have</p> <p>24 uterine fibroids?</p> <p>25 A. Again, I gave you my answer.</p>	<p>1 Q. And in the lower right-hand corner there's two page</p> <p>2 numbers. One's a stamped page number that we call a</p> <p>3 Bates Number, and the other is a handwritten page</p> <p>4 number, correct?</p> <p>5 A. This and this? Yes.</p> <p>6 MS. O'DELL: Yes.</p> <p>7 BY MR. KLATT:</p> <p>8 Q. When were those handwritten page numbers added to the</p> <p>9 lab book?</p> <p>10 A. I don't know.</p> <p>11 Q. Because we had gotten a black and white copy of the lab</p> <p>12 book, and there were no page numbers on it, so were</p> <p>13 they added recently?</p> <p>14 A. No, definitely not. They should have them, you should</p> <p>15 have them in your black, white and black.</p> <p>16 Q. Would you look at Exhibit 1 handwritten Page 31 Bates</p> <p>17 Number, and I'll just say the last two Bates Numbers</p> <p>18 02.</p> <p>19 A. Page 2, you said?</p> <p>20 Q. Yes, Page 02 is the stamp number and Page 31 --</p> <p>21 A. Yes.</p> <p>22 Q. -- is the handwritten number.</p> <p>23 A. I'm looking at it.</p> <p>24 Q. Down at the bottom it says cells doubled in one day.</p> <p>25 What's that referring to?</p>
Page 291	Page 293
<p>1 Q. Can CA-125 be increased by coronary heart disease?</p> <p>2 A. I don't know.</p> <p>3 Q. Can you look at Exhibit Number 1, please, which I</p> <p>4 believe is the copy of your lab book.</p> <p>5 A. Lab report, okay.</p> <p>6 Q. And I'm going to -- does your copy have the Bates</p> <p>7 Numbers down on the right-hand corner?</p> <p>8 MS. O'DELL: He's looking at the actual lab</p> <p>9 notebook.</p> <p>10 MR. KLATT: Is it Bates Numbered?</p> <p>11 MS. O'DELL: Not the lab notebook, no. We</p> <p>12 have not made markings on this.</p> <p>13 MR. KLATT: Do you have a copy of Exhibit 1?</p> <p>14 Let's make sure we're referring --</p> <p>15 MS. O'DELL: I think that may be yours, and,</p> <p>16 Mike, if you wouldn't mind directing us to the page</p> <p>17 number that's written on the actual book itself.</p> <p>18 MR. KLATT: Yeah, I'll give both the Bates</p> <p>19 number and the page number.</p> <p>20 MS. O'DELL: That would be good.</p> <p>21 BY MR. KLATT:</p> <p>22 Q. Are you looking now at Exhibit 1, Doctor?</p> <p>23 A. Yes.</p> <p>24 Q. And it's a copy of the lab notebook, correct?</p> <p>25 A. Yes.</p>	<p>1 A. Okay, so when you culture the cells, you want to get --</p> <p>2 cells divide and they double, so you want to have them</p> <p>3 in the stage -- that's just a notation that the cell</p> <p>4 doubled so we can start the experiment.</p> <p>5 Q. And so were these cells doubling each day?</p> <p>6 A. No, no, not necessarily. This is just to follow up the</p> <p>7 progress of cell growth. And then we take from that 1</p> <p>8 million cells, and then we start, because the space for</p> <p>9 the cell is very important, so if they don't double in</p> <p>10 one day, it means that the space is not good and they</p> <p>11 are overcrowded, so now we split them. So this is an</p> <p>12 indication that they're ready for us so we can use.</p> <p>13 Q. Did you try to measure cell proliferation in the</p> <p>14 presence of talc by BRDU incorporation?</p> <p>15 A. What is PRDU?</p> <p>16 Q. BRDU incorporation, are you familiar with that method?</p> <p>17 A. BRDU? I've never heard of that.</p> <p>18 Q. What about Ki-67, did you use that method --</p> <p>19 A. No.</p> <p>20 Q. -- in your experiments to measure cell proliferation?</p> <p>21 A. As I stated earlier, Ki-67 is used by pathologists</p> <p>22 mainly or researchers in tissue sections.</p> <p>23 Q. My question is did you use it in this --</p> <p>24 A. No.</p> <p>25 Q. -- experiment? Did you try to count cells to measure</p>

74 (Pages 290 to 293)

Ghassan Saed, Ph.D.

Page 294	Page 296
<p>1 proliferation using a hemocytometer?</p> <p>2 A. Okay, for cell proliferation we use MTT assay, that's</p> <p>3 even more accurate than what you're referring to, but</p> <p>4 we always count cells with hemocytometer to start with</p> <p>5 1 million cells, this is how we start.</p> <p>6 Q. But did you try to measure cell proliferation in your</p> <p>7 experiments by using a hemocytometer in cell counting?</p> <p>8 A. Cell proliferation cannot be measured by cell count.</p> <p>9 Q. Would you agree with me that MTT is not the optimal</p> <p>10 method to measure cell proliferation?</p> <p>11 A. It is one of the best methods we have tested.</p> <p>12 Q. It simply measures cell metabolism, doesn't it?</p> <p>13 A. It measures the -- it differentiates between cells,</p> <p>14 cells that incorporate the dye versus cells that it</p> <p>15 doesn't incorporate the dye, which means it</p> <p>16 differentiates between viable cells and proliferative</p> <p>17 cells.</p> <p>18 Q. And if you increase the metabolism of a certain number</p> <p>19 of cells, that will increase the dye level even if you</p> <p>20 don't have a greater number of cells?</p> <p>21 A. I don't know about metabolism that you're throwing in</p> <p>22 here.</p> <p>23 Q. You don't know about that?</p> <p>24 A. No.</p> <p>25 Q. Can you look again, referring to Exhibit 1, and I'm</p>	<p>1 A. Oh, that's a different question. I thought you were</p> <p>2 talking about the sample ID refers to what. That's my</p> <p>3 answer.</p> <p>4 Q. I'm talking about in your experiment.</p> <p>5 A. In my experiment, we took like, for example, normal</p> <p>6 macrophages from one plate, and we divided that into</p> <p>7 two. One plate got treatment, the other plate no</p> <p>8 treatment. And then we continue, we isolated RNA.</p> <p>9 Q. So for, for example, let's take Sample ID 357, EL1 5</p> <p>10 micrograms of talc?</p> <p>11 A. Yes.</p> <p>12 Q. That was on one plate?</p> <p>13 A. Okay, let me explain this one more time. So you</p> <p>14 take -- this is the stock samples, we call it 356,</p> <p>15 okay. We split that into -- we take -- we can --</p> <p>16 that's why when you said one plate, it's not true,</p> <p>17 because we take one, two, three, four plates, okay, so</p> <p>18 each plate will get the treatment like 5 micrograms, 20</p> <p>19 micrograms, 100 micrograms.</p> <p>20 Q. I understand that. I'm just talking about Sample 357?</p> <p>21 A. 357 is 1 million cells of macrophages treated with 5</p> <p>22 microgram per ml of talc.</p> <p>23 Q. And it was one plate?</p> <p>24 A. 1 million cells, one plate.</p> <p>25 Q. And then from that you took mRNA, correct?</p>
Page 295	Page 297
<p>1 referring to the Bates Stamped page that ends in -- the</p> <p>2 stamp number is 03 and the handwritten Page 32.</p> <p>3 A. Yes.</p> <p>4 Q. And there's a list there of sample IDs, is that</p> <p>5 correct?</p> <p>6 A. Correct.</p> <p>7 Q. And are those the cell lines that you tested in your</p> <p>8 experiments?</p> <p>9 A. Yes, in this experiment.</p> <p>10 Q. And I want to make sure I understand, for each sample</p> <p>11 ID, let's just take the first one Sample ID 356, the</p> <p>12 EL1 untreated, so would that sample represent one plate</p> <p>13 of those cells?</p> <p>14 A. The 356?</p> <p>15 Q. Right?</p> <p>16 A. It represents an aliquot of normal macrophages with no</p> <p>17 treatment with talc.</p> <p>18 Q. And is it one plate of cells?</p> <p>19 A. It could be one if we need or two or three or four,</p> <p>20 depends on --</p> <p>21 Q. What was it in this case?</p> <p>22 A. Any sample that carry this number is a normal</p> <p>23 macrophages, you can have it in one plate, two plates,</p> <p>24 five plates, 10 plates.</p> <p>25 Q. And what did you have it in your experiment?</p>	<p>1 A. Correct.</p> <p>2 Q. And then from the mRNA from that one plate of cells,</p> <p>3 you took -- or created CDNA, correct?</p> <p>4 A. Correct.</p> <p>5 Q. And then at the end of the day, you measured that CDNA</p> <p>6 three separate times, correct?</p> <p>7 A. Correct.</p> <p>8 Q. And from the process I just described, that all</p> <p>9 originated for 357 from that one plate that was treated</p> <p>10 with 5 micrograms of talc, correct?</p> <p>11 A. One plate, yes.</p> <p>12 Q. And did you do that for each of the cell lines listed</p> <p>13 Samples 356 through 386?</p> <p>14 A. Yes, let me explain something here. So we --</p> <p>15 Q. That's all I needed.</p> <p>16 A. Okay. Can I explain something?</p> <p>17 Q. Sure.</p> <p>18 A. So I know what you're referring to that this is called</p> <p>19 N = 1, but we have even better and more precise way of</p> <p>20 measuring this very old method of doing it. We chose</p> <p>21 to do instead of repeat the same one three times, so</p> <p>22 N = 3, we actually chose three different normal cells</p> <p>23 and three different ovarian cancer cells, and that is</p> <p>24 more powerful than using the same one three times.</p> <p>25 Q. Okay.</p>

75 (Pages 294 to 297)

Ghassan Saed, Ph.D.

Page 298	Page 300
<p>1 MR. LOCKE: Can I just make an objection.</p> <p>2 Those are the kind of answers that your counsel can ask</p> <p>3 you the question so you can give an explanation. All</p> <p>4 of the defendants don't have time to question you, so</p> <p>5 "yes" or "no" would be helpful, particularly at this</p> <p>6 point where we're really running out of time.</p> <p>7 MS. O'DELL: Well, he's been asking specific</p> <p>8 questions about plates, and for it not to be clear, and</p> <p>9 he needs to -- he needs to give a responsive answer.</p> <p>10 MR. LOCKE: We're wasting time.</p> <p>11 BY MR. KLATT:</p> <p>12 Q. What I want to know is for 357 and all the sample IDs</p> <p>13 listed here, there was one individual plate for each</p> <p>14 sample ID treated with a certain level of talc,</p> <p>15 correct?</p> <p>16 A. Correct.</p> <p>17 Q. Easy, Doctor.</p> <p>18 A. Thank you.</p> <p>19 Q. Gene expression, measuring gene expression is not the</p> <p>20 same thing as measuring gene mutations, correct?</p> <p>21 A. Gene expression refers to mRNA levels that is reflected</p> <p>22 in protein levels.</p> <p>23 Q. Gene expression is something that occurs all the time</p> <p>24 in our bodies every day, correct?</p> <p>25 A. Correct.</p>	<p>1 Q. The major source of ROS comes from inside the cells</p> <p>2 from mitochondria, correct?</p> <p>3 A. Not accurate answer, no.</p> <p>4 Q. Can you distinguish between ROS produced inside the</p> <p>5 mitochondria of the cell from ROS produced outside the</p> <p>6 cell?</p> <p>7 A. There are some enzymes that are produced from the</p> <p>8 mitochondria like SOD in different forms, and there are</p> <p>9 SODs that are produced from the membrane of the cell</p> <p>10 and the cytoplasm, so it depends.</p> <p>11 Q. Do you agree that the persistent generation of cellular</p> <p>12 ROS is a consequence of aging?</p> <p>13 A. I didn't study aging.</p> <p>14 Q. You haven't said that before?</p> <p>15 A. That --</p> <p>16 Q. The persistent generation of cellular ROS is a</p> <p>17 consequence of aging.</p> <p>18 A. I don't remember. Aging of the cells or aging of</p> <p>19 people?</p> <p>20 Q. Aging of people.</p> <p>21 A. I don't remember I said that.</p> <p>22 Q. You didn't sequence the DNA in your studies to</p> <p>23 determine mutations, correct? You only used the SNP</p> <p>24 gene assay?</p> <p>25 A. I used the SNP gene assay, yes.</p>
Page 299	Page 301
<p>1 Q. It's how we live as people, right?</p> <p>2 A. Yes.</p> <p>3 Q. If we didn't have gene expression, we'd be dead?</p> <p>4 A. I don't know why you're saying that.</p> <p>5 Q. Is it true?</p> <p>6 A. Of course.</p> <p>7 Q. You would agree with me that a reactive oxygen species,</p> <p>8 and can we call that ROS for short, Doctor?</p> <p>9 A. Yes, I'm thinking, reactive oxygen and reactive</p> <p>10 nitrogen species, let's call them oxidants.</p> <p>11 Q. I'm sorry?</p> <p>12 A. Oxidants.</p> <p>13 Q. Oxidants? Well, what if I'm specifically asking about</p> <p>14 ROS, reactive oxygen --</p> <p>15 A. You can, it depends on which one you would specify I</p> <p>16 would answer, yes.</p> <p>17 Q. Okay. So if I say ROS, can we agree I'm talking about</p> <p>18 reactive oxygen species?</p> <p>19 A. Yes. Which one, though? You have to tell me.</p> <p>20 Q. As a category.</p> <p>21 A. Okay, keep going.</p> <p>22 Q. ROS aren't the same thing as inflammation, correct?</p> <p>23 A. Not correct.</p> <p>24 Q. ROS are a part of normal cell physiology, correct?</p> <p>25 A. Normal levels of ROS found in cells, yes.</p>	<p>1 Q. You realize the same company that made the SNP gene</p> <p>2 assay that you used also makes a gene mutation assay?</p> <p>3 A. No, I'm not aware of that.</p> <p>4 Q. You're not aware of that?</p> <p>5 A. No.</p> <p>6 Q. But so, therefore, you did not use that company's gene</p> <p>7 mutation assay in your experiments, correct?</p> <p>8 MS. O'DELL: Object to the form.</p> <p>9 THE WITNESS: I used the core facility at our</p> <p>10 institutions, and this is what they ran and this is</p> <p>11 what I have.</p> <p>12 BY MR. KLATT:</p> <p>13 Q. So you did not use the gene mutation assay made by the</p> <p>14 same company that makes the SNP assay that you used in</p> <p>15 your studies, correct?</p> <p>16 MS. O'DELL: Object to the form.</p> <p>17 THE WITNESS: The core facility ordered the</p> <p>18 kits, and they are the one who choose which company to</p> <p>19 buy it from. I have no influence in that.</p> <p>20 BY MR. KLATT:</p> <p>21 Q. So was the core facility the one that decided to use</p> <p>22 the SNP assay rather than the gene mutation assay or</p> <p>23 was that your decision?</p> <p>24 A. That was what is available in the core facility, and I</p> <p>25 said I want to use it.</p>

Ghassan Saed, Ph.D.

Page 302	Page 304
<p>1 Q. But you were unaware that the same company that makes</p> <p>2 the SNP assay also makes a gene mutation assay; is that</p> <p>3 true?</p> <p>4 MS. O'DELL: Object to the form.</p> <p>5 THE WITNESS: I don't even know what company</p> <p>6 you're talking about.</p> <p>7 BY MR. KLATT:</p> <p>8 Q. Do you know what company made the SNP assay?</p> <p>9 A. The core facility ordered the SNP kit, they just give</p> <p>10 you -- I'm interested in doing the SNP mutation and</p> <p>11 this is what we run, so please run these samples for</p> <p>12 me.</p> <p>13 Q. Did you ask them not to use a gene mutation assay?</p> <p>14 A. Not to use? I didn't ask them, no.</p> <p>15 Q. Would you agree with me that the determination of the</p> <p>16 redox state of a cell is determined by far more enzymes</p> <p>17 and proteins and substances than just the ones you</p> <p>18 looked at in your talc studies?</p> <p>19 MS. O'DELL: Object to the form.</p> <p>20 THE WITNESS: We -- in my studies we looked</p> <p>21 at there are many enzymes, but we're looking at key</p> <p>22 enzymes that control the redox balance.</p> <p>23 BY MR. KLATT:</p> <p>24 Q. Object, nonresponsive. Do you agree with me that redox</p> <p>25 balance in cells is controlled by far more enzymes,</p>	<p>1 A. Saying it, I don't recall saying it.</p> <p>2 Q. Do you recall writing it?</p> <p>3 A. Maybe, but that does not agree with what you just said,</p> <p>4 what you read.</p> <p>5 Q. Can oxidative stress both promote apoptosis and promote</p> <p>6 cell survival?</p> <p>7 A. Oxidative stress is a balance, so it's not just simple</p> <p>8 process. So the outcome of this balance promote</p> <p>9 proliferation, promote survival, and decrease</p> <p>10 apoptosis.</p> <p>11 Q. Can oxidative stress be both pro-tumorigenic and</p> <p>12 anti-tumorigenic?</p> <p>13 A. You mean marker, some certain markers of oxidative</p> <p>14 stress? Is that what you're referring to?</p> <p>15 Q. Sure.</p> <p>16 A. Certain markers of oxidative stress can have -- can</p> <p>17 induce tumors and can inhibit tumor, I'm not really</p> <p>18 aware of that.</p> <p>19 Q. Are you aware of any study case report or case series</p> <p>20 that says that women that use talc in the external</p> <p>21 genital area have increased fibrosis or adhesions</p> <p>22 anywhere in their reproductive tract?</p> <p>23 MS. O'DELL: Object to the form.</p> <p>24 THE WITNESS: Have I -- am I aware of people</p> <p>25 use talcum powder is linked to development of</p>
Page 303	Page 305
<p>1 proteins, and substances than you looked at in your</p> <p>2 talc studies?</p> <p>3 MS. O'DELL: Object to the form.</p> <p>4 THE WITNESS: And I answered. I said</p> <p>5 these -- the one we looked at are the main, there are</p> <p>6 others, but they're not major players. Those are, the</p> <p>7 one we studied are the major contributor to the overall</p> <p>8 pro-oxidant state of the cell.</p> <p>9 BY MR. KLATT:</p> <p>10 Q. And some of those enzymes in some cancers are pro-</p> <p>11 tumorigenic and some of those same enzymes in other</p> <p>12 cancers are anti-tumorigenic, correct?</p> <p>13 A. I'm not aware of that.</p> <p>14 Q. You haven't said that before?</p> <p>15 A. Said that exact word? No.</p> <p>16 Q. Do you recall ever saying this: Decreasing oxidative</p> <p>17 stress and increased SOD promotes apoptosis in the</p> <p>18 cancer cell lines studied, but multiple other studies</p> <p>19 performed using other cell lines have shown the</p> <p>20 opposite, that decreased SOD can promote apoptosis?</p> <p>21 MS. O'DELL: Object to the form.</p> <p>22 THE WITNESS: So this -- I said that? Or you</p> <p>23 took this from my --</p> <p>24 BY MR. KLATT:</p> <p>25 Q. I'm asking if you recall saying that?</p>	<p>1 possibility of adhesions?</p> <p>2 BY MR. KLATT:</p> <p>3 Q. I'm asking you a very specific question. Are you aware</p> <p>4 of any articles in the medical or scientific</p> <p>5 literature, any case studies, any case reports of women</p> <p>6 who used external talc having increased adhesions,</p> <p>7 fibrosis, granulomas anywhere in their reproductive</p> <p>8 tract?</p> <p>9 MS. O'DELL: Object to the form.</p> <p>10 THE WITNESS: What do you mean by external?</p> <p>11 BY MR. KLATT:</p> <p>12 Q. What does external mean to you?</p> <p>13 A. I'm asking you.</p> <p>14 Q. I'm asking the questions, Doctor.</p> <p>15 A. Okay, I understand, I just want to clarify.</p> <p>16 Q. Do you understand what external talc application means?</p> <p>17 MS. O'DELL: You didn't say that, you just</p> <p>18 said external, so, anyway.</p> <p>19 If you understand his question, answer the</p> <p>20 question or define what you mean.</p> <p>21 BY MR. KLATT:</p> <p>22 Q. Let me ask the question again. Are you aware of any</p> <p>23 study in the medical or scientific literature, case</p> <p>24 report, that shows that external genital application of</p> <p>25 talc results in increased fibrosis, granulomas, or</p>

77 (Pages 302 to 305)

Ghassan Saed, Ph.D.

Page 306	Page 308
<p>1 adhesions anywhere inside the female reproductive</p> <p>2 tract?</p> <p>3 MS. O'DELL: Object to the form.</p> <p>4 THE WITNESS: I'm not aware.</p> <p>5 BY MR. KLATT:</p> <p>6 Q. Are you aware that according to studies, anywhere from</p> <p>7 30 to 50 percent of U.S. women have used talc in the</p> <p>8 external genital area?</p> <p>9 A. I'm sorry, say that again, sorry.</p> <p>10 Q. Are you aware from studies that anywhere from 30 to 50</p> <p>11 percent of U.S. women have used talcum powder in the</p> <p>12 external genital area?</p> <p>13 A. I'm not sure about the number.</p> <p>14 Q. Are you aware of any epidemic of granulomas, fibrosis,</p> <p>15 or adhesions in women who use externally applied</p> <p>16 genital talc?</p> <p>17 MS. O'DELL: Object to the form.</p> <p>18 THE WITNESS: I don't know if -- I don't know</p> <p>19 if any relation between talc powder use and adhesions.</p> <p>20 BY MR. KLATT:</p> <p>21 Q. Is there a way to measure the redox state directly</p> <p>22 inside of cells?</p> <p>23 A. Very difficult.</p> <p>24 Q. Can it be done?</p> <p>25 A. The data will not be very reliable.</p>	<p>1 look and see if I have any other notes.</p> <p>2 THE VIDEOGRAPHER: Going off the record at</p> <p>3 6:18 p.m.</p> <p>4 (An off-the-record discussion was held.)</p> <p>5 THE VIDEOGRAPHER: Back on the record at 6:19</p> <p>6 p.m.</p> <p>7 BY MR. KLATT:</p> <p>8 Q. Doctor, in your PCR studies, did you normalize for</p> <p>9 actin?</p> <p>10 A. Yes.</p> <p>11 Q. And how did you do that?</p> <p>12 A. So we did PCR for beta-actin.</p> <p>13 Q. And where is that indicated in your lab --</p> <p>14 A. It is page -- every experiment we did with PCR we ran</p> <p>15 beta-actin, and if you go to Page -- what's this page</p> <p>16 here --</p> <p>17 MS. O'DELL: What's the ending Bates Number</p> <p>18 on there?</p> <p>19 BY MR. KLATT:</p> <p>20 Q. There may be a Bates Number in the lower right hand</p> <p>21 corner.</p> <p>22 A. 10.</p> <p>23 Q. Okay. I'm with you.</p> <p>24 A. Are you there?</p> <p>25 Q. Yes.</p>
Page 307	Page 309
<p>1 Q. Is there a method to do that?</p> <p>2 A. You can measure H2O2, you can measure nitrosylation,</p> <p>3 degree of nitrosylation of protein, we have done that</p> <p>4 with Caspase-3 and S-nitrosylation of Caspase-3 as a</p> <p>5 measure of how the level of antioxidants. The accurate</p> <p>6 way to measure it is to measure the key players</p> <p>7 together to have the complete picture.</p> <p>8 Q. Those two methods that you just named, did you use</p> <p>9 those in any of your talc studies?</p> <p>10 A. What methods?</p> <p>11 Q. The methods you just listed for me which were a way to</p> <p>12 directly measure the redox state of cells.</p> <p>13 A. Measuring all markers? Oh, the other method, yes, they</p> <p>14 are listed here.</p> <p>15 Q. Did you use those?</p> <p>16 A. I'm sorry, I'm missing you. Am I use ever in my lab or</p> <p>17 in this study?</p> <p>18 Q. In the talc studies.</p> <p>19 A. The S-nitrosylation of Caspase-3, we did not use in</p> <p>20 this study.</p> <p>21 Q. And there was one other method that you mentioned.</p> <p>22 A. The H2O2.</p> <p>23 Q. Did you use that method in your talc --</p> <p>24 A. No, we used it for catalase activity indirectly.</p> <p>25 Q. Can we go off the record for a second. I just need to</p>	<p>1 A. It's even cut off from here, I don't know why. But you</p> <p>2 see the standard curve?</p> <p>3 Q. Yes.</p> <p>4 A. Okay, so what we do here, we do a realtime RT-PCR where</p> <p>5 we design a small oligo that is flanked by the primers,</p> <p>6 and we order that to be synthesized, and we know the</p> <p>7 concentration, we dilute it down, and we create a</p> <p>8 standard curve, and we use this standard curve to</p> <p>9 extrapolate the results and normalize for our level of</p> <p>10 mRNA with the treatment.</p> <p>11 Q. Can I ask you a question. On Page 10, that indicates</p> <p>12 raw data, correct?</p> <p>13 A. Page 10?</p> <p>14 Q. The page you were just looking at.</p> <p>15 A. I just want to see, it's not clear here. I just want</p> <p>16 to see what page is this here. I'm with you.</p> <p>17 MS. O'DELL: What's the question, Mike?</p> <p>18 BY MR. KLATT:</p> <p>19 Q. Looking at Page 10 on Exhibit 1, and I'm not talking</p> <p>20 about the lab page number, I'm talking about the Bates</p> <p>21 Number, if you look for Sample 356, you see to the</p> <p>22 right there's numbers 285995.18, 273439.209?</p> <p>23 A. Uh-huh.</p> <p>24 Q. And 409589.891?</p> <p>25 A. Correct.</p>

78 (Pages 306 to 309)

Ghassan Saed, Ph.D.

Page 310	Page 312
<p>1 Q. If you turn to the next page, those numbers are</p> <p>2 replicated for Sample 356.</p> <p>3 A. What next page?</p> <p>4 Q. The very next page in the --</p> <p>5 A. Here?</p> <p>6 Q. Yeah.</p> <p>7 A. Okay. Where are they? 356, this is copies per</p> <p>8 micrograms of CDNA.</p> <p>9 Q. And that corresponds to those numbers, those same three</p> <p>10 numbers on the previous page, correct?</p> <p>11 A. So this is the copy number, 28274095, yeah, I see</p> <p>12 they're the same.</p> <p>13 Q. But for the 357 sample, the numbers don't correspond</p> <p>14 between those two pages, correct?</p> <p>15 A. Correct.</p> <p>16 Q. And can you explain why?</p> <p>17 A. So that's why we normalize, because you will have</p> <p>18 different copy numbers all the time, so we normalize</p> <p>19 it.</p> <p>20 Q. Can you go to the next page, which would be notebook</p> <p>21 page -- handwritten Page 39 and Bates Number 11.</p> <p>22 A. 39? I'm still on the same page, right?</p> <p>23 MS. O'DELL: That's where we were I thought,</p> <p>24 unless I was confused about your question.</p> <p>25 BY MR. KLATT:</p>	<p>1 A. Yeah. Is it Page 41?</p> <p>2 MS. O'DELL: You're on Page 11?</p> <p>3 MR. KLATT: Correct.</p> <p>4 MS. O'DELL: So I think it's this page.</p> <p>5 THE WITNESS: Oh. Isn't it this page?</p> <p>6 MS. O'DELL: No, I think it's back, if I'm</p> <p>7 not mistaken.</p> <p>8 THE WITNESS: Oh, here. We were on this</p> <p>9 page, right?</p> <p>10 BY MR. KLATT:</p> <p>11 Q. I'm confused because you're looking at the real lab</p> <p>12 notebook and I'm looking at --</p> <p>13 A. No, no, no, we were on the same page. I thought you</p> <p>14 asked me to go to a different page. I see that column.</p> <p>15 Q. Just so we're on the same wavelength --</p> <p>16 A. I see it.</p> <p>17 Q. -- I'm referring to Page 11 Bates Number, correct?</p> <p>18 A. Picogram per microgram for RNA.</p> <p>19 Q. Right.</p> <p>20 A. 4.58, the first number.</p> <p>21 Q. 4.58?</p> <p>22 A. Uh-huh.</p> <p>23 Q. Right, and if you go -- that whole column's full of</p> <p>24 numbers, correct?</p> <p>25 A. This column, yes.</p>
Page 311	Page 313
<p>1 Q. Well, Bates Number -- my Bates Number's cut off, excuse</p> <p>2 me, my handwritten number's cut off so I'm going to the</p> <p>3 Bates Number, which is 11.</p> <p>4 MS. O'DELL: Okay, it's Page --</p> <p>5 THE WITNESS: The next page.</p> <p>6 BY MR. KLATT:</p> <p>7 Q. Okay. And do you see the column toward the right</p> <p>8 called picograms per microgram of RNA?</p> <p>9 A. Where is that?</p> <p>10 Q. The third column from the right-hand side.</p> <p>11 A. On Page -- in this page, right?</p> <p>12 Q. Page 11, Bates Stamped Page 11.</p> <p>13 A. This is the page, okay, this is the page. So you're</p> <p>14 looking at microgram?</p> <p>15 Q. Picograms per microgram per RNA, do you see that</p> <p>16 column?</p> <p>17 A. I see copies per microgram for RNA, I see copies per</p> <p>18 microgram for RNA, thintogram (sic) per microgram for</p> <p>19 RNA. Is what you're looking at?</p> <p>20 Q. I'm looking right here, picograms per micrograms RNA</p> <p>21 the third column from the right.</p> <p>22 A. 1, 2, 3, that's called thintogram (sic).</p> <p>23 Q. And what's the first number in that column?</p> <p>24 A. 125. Is that what you're looking at?</p> <p>25 Q. I think we're not looking in the same place.</p>	<p>1 Q. And then to the right of that you have an average,</p> <p>2 correct?</p> <p>3 A. Yes.</p> <p>4 Q. Sometimes you average two of the three numbers,</p> <p>5 sometimes you average all three numbers.</p> <p>6 A. Correct.</p> <p>7 Q. Why do you only average two of the three numbers</p> <p>8 sometimes?</p> <p>9 A. If we have outlier, really high, different.</p> <p>10 Q. And what's your criteria for throwing out an outlier?</p> <p>11 A. So if you have 4.5, 4.3, and 6.5, that's an outlier.</p> <p>12 Q. What's your threshold for classifying something as an</p> <p>13 outlier to not include it in your calculations?</p> <p>14 A. So if the two numbers match, the closer they match and</p> <p>15 the higher the outlier is is what we determine.</p> <p>16 Q. So do you always throw out the outlier of the three</p> <p>17 values?</p> <p>18 A. Not always, not necessarily.</p> <p>19 Q. So I'm just trying to figure what's your criteria</p> <p>20 for --</p> <p>21 A. So if they are like, for example, close like, for</p> <p>22 example, here, if we don't know that it is an outlier,</p> <p>23 like, for example, here, 3.6, 4.3, 3.2, it's very hard</p> <p>24 to determine an outlier, but if you have 6 and 6 and 7,</p> <p>25 it is not hard.</p>

79 (Pages 310 to 313)

Ghassan Saed, Ph.D.

<p style="text-align: right;">Page 314</p> <p>1 Q. Do you have a certain numerical criteria that you use</p> <p>2 to classify something as an outlier that you're going</p> <p>3 to exclude from your calculations?</p> <p>4 A. I just told you.</p> <p>5 Q. What's the numerical value?</p> <p>6 A. I don't have a numerical value.</p> <p>7 Q. You just eyeball it?</p> <p>8 MS. O'DELL: Object to the form.</p> <p>9 THE WITNESS: No, no, no, no, please, so I</p> <p>10 just said that if the two numbers, okay, agrees very</p> <p>11 close, the closer the two numbers together and the more</p> <p>12 further is the other number, that is considered an</p> <p>13 outlier to me.</p> <p>14 BY MR. KLATT:</p> <p>15 Q. But, again, you don't have any numerical formula that</p> <p>16 you follow to make that determination, correct?</p> <p>17 MS. O'DELL: Object to the form.</p> <p>18 THE WITNESS: I told you what I follow.</p> <p>19 BY MR. KLATT:</p> <p>20 Q. When it's close together, you exclude the third one.</p> <p>21 When it's further apart, you --</p> <p>22 A. I did not say that.</p> <p>23 MS. O'DELL: Object to the form.</p> <p>24 BY MR. KLATT:</p> <p>25 Q. Then please explain numerically how you make the</p>	<p style="text-align: right;">Page 316</p> <p>1</p> <p>2 RE-EXAMINATION BY MR. HEGARTY:</p> <p>3 Q. Doctor, I'm showing you what I'm marking as Exhibit 19.</p> <p>4 Do you recognize Exhibit 19?</p> <p>5 A. It looks like the abstract we submitted to SGO.</p> <p>6 Q. This abstract in the middle refers to testing done at</p> <p>7 48 hours; is that correct?</p> <p>8 A. 48 hours is a typo everywhere you see it, I acknowledge</p> <p>9 that.</p> <p>10 Q. So you reported 48 hours in this abstract to SGO?</p> <p>11 A. Correct. It is wrong. All the work that I did it's 72</p> <p>12 hours.</p> <p>13 SAED DEPOSITION EXHIBIT NUMBER 20,</p> <p>14 ABSTRACT,</p> <p>15 WAS MARKED BY THE REPORTER</p> <p>16 FOR IDENTIFICATION</p> <p>17 BY MR. HEGARTY:</p> <p>18 Q. I'm going to mark as Exhibit Number 20 another abstract</p> <p>19 of yours; is that correct?</p> <p>20 A. Where is it -- talcum powder -- where was this?</p> <p>21 Q. Do you recognize this abstract?</p> <p>22 A. March 2018, okay.</p> <p>23 Q. In the middle you report treating cells at 0, 200, and</p> <p>24 500 micrograms per milliliter; is that correct?</p> <p>25 A. Yes, that was the initial study that we did.</p>
<p style="text-align: right;">Page 315</p> <p>1 decision to exclude one of the three values --</p> <p>2 A. Okay.</p> <p>3 Q. -- or include it.</p> <p>4 A. One more time. So if the two number -- we have three</p> <p>5 numbers, right, three values. If two of the three</p> <p>6 values are very close, the closer they are together,</p> <p>7 and they are more further from the third one, that</p> <p>8 third one qualifies for outlier.</p> <p>9 Q. How close do the two have to be to exclude the third?</p> <p>10 A. Very close, have to be very close.</p> <p>11 Q. Numerically how --</p> <p>12 A. I don't know, I don't have a numerical value.</p> <p>13 Q. That's all the questions I have, Doctor.</p> <p>14 MR. HEGARTY: How much time do we have left?</p> <p>15 THE VIDEOGRAPHER: Two minutes left.</p> <p>16 MS. O'DELL: Do you have questions?</p> <p>17 MR. LOCKE: I do have a few.</p> <p>18 MS. O'DELL: You've got two minutes.</p> <p>19 MR. LOCKE: I know you've got some, too.</p> <p>20 MR. HEGARTY: I do.</p> <p>21 MR. LOCKE: Go ahead, Mark.</p> <p>22 SAED DEPOSITION EXHIBIT NUMBER 19,</p> <p>23 ABSTRACT SUBMITTED TO SGO,</p> <p>24 WAS MARKED BY THE REPORTER</p> <p>25 FOR IDENTIFICATION</p>	<p style="text-align: right;">Page 317</p> <p>1 Q. And that data is reflected in the notebooks we looked</p> <p>2 at?</p> <p>3 A. It's here, yes.</p> <p>4 MR. KLATT: Which notebook?</p> <p>5 MS. O'DELL: Exhibit 3.</p> <p>6 SAED DEPOSITION EXHIBIT NUMBER 21,</p> <p>7 ABSTRACT FROM SRI,</p> <p>8 WAS MARKED BY THE REPORTER</p> <p>9 FOR IDENTIFICATION</p> <p>10 BY MR. HEGARTY:</p> <p>11 Q. I'm going to mark next as Exhibit Number 21 another</p> <p>12 abstract of yours from SRI; is that correct?</p> <p>13 A. SRI, March 16, this one is -- what is the title --</p> <p>14 yeah, talcum powder -- yes.</p> <p>15 Q. In the method section you report treating cells with</p> <p>16 1,000 micrograms per milliliter of talc; is that</p> <p>17 correct?</p> <p>18 A. That's a typo that's 100.</p> <p>19 Q. That's another mistake?</p> <p>20 A. Yes, it's 100.</p> <p>21 MS. O'DELL: I think your time's gone.</p> <p>22 MR. HEGARTY: Okay. Well, we --</p> <p>23 THE WITNESS: And all those are the</p> <p>24 preliminary that we did.</p> <p>25 MR. HEGARTY: We have request for several</p>

80 (Pages 314 to 317)

Ghassan Saed, Ph.D.

Page 318	Page 320
<p>1 documents to be produced, so we can go on the record</p> <p>2 before we finish the deposition. And then, also, we</p> <p>3 reserve the right, as we indicated at the beginning of</p> <p>4 the deposition, to seek additional time because of the</p> <p>5 late productions and, also, because of the</p> <p>6 nonresponsive nature Dr. Saed has been throughout the</p> <p>7 deposition.</p> <p>8 MS. O'DELL: I think the objection for one</p> <p>9 was objection for all, I think you made that rule,</p> <p>10 Mike, but I'm glad you put -- we're going to go off the</p> <p>11 record, and I may have a few questions for Dr. Saed.</p> <p>12 Before I do, I will say I think to state that Dr. Saed</p> <p>13 has not been responsive in his answers today is a</p> <p>14 misstate. The record and his testimony will be</p> <p>15 reflective that he was attempting to respond to the</p> <p>16 questions, very difficult technical questions, and so</p> <p>17 he's attempted to do his best, and as we said before,</p> <p>18 we've complied with all the orders of the Court and the</p> <p>19 Notice of Deposition, and we'll oppose efforts at this</p> <p>20 point for any additional time with him. So let's go</p> <p>21 off the record.</p> <p>22 MR. HEGARTY: And to the extent that you</p> <p>23 don't have any additional questions, I just want to go</p> <p>24 back on the record and make a note of the additional</p> <p>25 documents we want from Dr. Saed. We can do it now or</p>	<p>1 actually, maybe I should do it this way, I apologize.</p> <p>2 If you would, let me hand to you what was marked as the</p> <p>3 lab notebook for your -- the experiments that were done</p> <p>4 to and reported on in your manuscript and your report,</p> <p>5 Exhibit 1. Do you see those?</p> <p>6 A. Yes.</p> <p>7 Q. And if you turn to I think it was Page 57, Bates Number</p> <p>8 57 -- make sure I'm at the right page. Let me know</p> <p>9 when you get there, Doctor.</p> <p>10 A. 57?</p> <p>11 Q. Uh-huh.</p> <p>12 A. This page?</p> <p>13 Q. Maybe I wrote the page down -- oh, yeah, it's actually</p> <p>14 84 in -- it's 57 in there and it's 84 in your main lab</p> <p>15 notebook. You recall a number of questions about or</p> <p>16 two questions at least that I recall, and it refers to</p> <p>17 Page 84 in Exhibit 2 that corresponds to Bates Number</p> <p>18 57 of Exhibit 1, do you recall that, and there was --</p> <p>19 you were asked about a missing data table --</p> <p>20 A. Correct.</p> <p>21 Q. -- that did not make it into the scanned version.</p> <p>22 A. Correct.</p> <p>23 Q. Is the data contained in the table on Page 57 of the</p> <p>24 scanned -- excuse me -- 84 of the lab notebook</p> <p>25 contained in the figure below?</p>
Page 319	Page 321
<p>1 we can do it at the end.</p> <p>2 MS. O'DELL: Why don't we wait until the end.</p> <p>3 MR. HEGARTY: Okay.</p> <p>4 THE VIDEOGRAPHER: Going off the record at</p> <p>5 6:32 p.m.</p> <p>6 (A short recess was taken.)</p> <p>7 THE VIDEOGRAPHER: We're back on the record</p> <p>8 at 6:56 p.m.</p> <p>9 EXAMINATION BY MS. O'DELL:</p> <p>10 Q. Doctor, I wanted to follow up on a few questions.</p> <p>11 First, when you were acting as a consultant, you</p> <p>12 referred to yourself as a consultant a number of times</p> <p>13 today, was it your understanding as a consultant you</p> <p>14 were also an expert witness?</p> <p>15 A. Yes.</p> <p>16 Q. And so during all the time that you were conducting the</p> <p>17 studies that you testified to today, that you were</p> <p>18 preparing certain publications, you were working as an</p> <p>19 expert witness?</p> <p>20 MR. KLATT: Objection, leading.</p> <p>21 BY MS. O'DELL:</p> <p>22 Q. Were you working during that time period as an expert</p> <p>23 witness?</p> <p>24 A. Yes.</p> <p>25 Q. Okay. Let me see if I can direct you back to --</p>	<p>1 A. Yes.</p> <p>2 Q. And was that figure included in the version that was</p> <p>3 provided to defense counsel?</p> <p>4 A. Yes.</p> <p>5 Q. Okay. I've got one more situation like this. If</p> <p>6 you'll turn to page -- let me get it -- it's 62 at the</p> <p>7 Bates Stamp Number version, Exhibit 1, and for the lab</p> <p>8 notebook it's Page 87.</p> <p>9 A. Yes.</p> <p>10 Q. And I think in this instance there was a table on</p> <p>11 Page 87 of the lab notebook that was not scanned in the</p> <p>12 electronic version. Is the data that's contained in</p> <p>13 the table on Page 87 also in the figure that was</p> <p>14 produced to Defendants?</p> <p>15 MR. HEGARTY: Objection, form. You can</p> <p>16 answer.</p> <p>17 THE WITNESS: Yes.</p> <p>18 BY MS. O'DELL:</p> <p>19 Q. You were also asked a series of questions about your</p> <p>20 manuscript and the use of the word marginal. Do you</p> <p>21 recall that discussion?</p> <p>22 A. Yes.</p> <p>23 Q. What did you intend by the use of the word marginal?</p> <p>24 A. I meant marked increase, marked difference.</p> <p>25 Q. Okay. Let me change directions with you. We got your</p>

81 (Pages 318 to 321)

Ghassan Saed, Ph.D.

Page 322	Page 324
<p>1 notebook that's been marked or two notebooks that have</p> <p>2 been marked Exhibit 11, and does that contain your</p> <p>3 expert report in this case as well as the references</p> <p>4 noted in your expert report?</p> <p>5 A. Correct.</p> <p>6 Q. And do you have any changes that you would like to make</p> <p>7 in your expert report?</p> <p>8 A. Yes, I do.</p> <p>9 Q. Okay.</p> <p>10 A. So I think during that note there were some references</p> <p>11 that were mislabeled, so I would like to --</p> <p>12 Q. Tell us what page you're on.</p> <p>13 A. Page 10, I'd like to add -- where it says 49, I would</p> <p>14 like to add 51 there.</p> <p>15 Q. And when you say 51, do go --</p> <p>16 A. Reference number 51.</p> <p>17 Q. Okay.</p> <p>18 A. Okay. And next page, Page 11, where it says 50 on the</p> <p>19 top of the page, first line, I'd like to add the NTP</p> <p>20 study 1993.</p> <p>21 Q. Okay.</p> <p>22 A. And on Page 12, I'd like to remove 4575.</p> <p>23 Q. Okay. And where is that on Page 12?</p> <p>24 A. On the middle paragraph.</p> <p>25 Q. All right.</p>	<p>1 BY MS. O'DELL:</p> <p>2 Q. You were asked a number of questions about your</p> <p>3 manuscript today. In your manuscript you state that</p> <p>4 your findings provide a molecular mechanism for linking</p> <p>5 genital talcum powder use to increased ovarian cancer</p> <p>6 risk?</p> <p>7 A. Yes.</p> <p>8 Q. And does that statement relate to the pathogenesis of</p> <p>9 ovarian cancer?</p> <p>10 A. Yes.</p> <p>11 Q. Does pathogenesis refer to the molecular mechanism that</p> <p>12 results in the development of a disease?</p> <p>13 A. Yes.</p> <p>14 Q. Also, in relation to your manuscript, has your</p> <p>15 manuscript been peer reviewed and accepted for</p> <p>16 publication?</p> <p>17 A. Yes.</p> <p>18 Q. Is the use of immortalized cells in laboratory research</p> <p>19 generally accepted in your field?</p> <p>20 A. Yes.</p> <p>21 MR. HEGARTY: Objection, form.</p> <p>22 BY MS. O'DELL:</p> <p>23 Q. Is it widely accepted?</p> <p>24 MR. HEGARTY: Objection, form.</p> <p>25 THE WITNESS: Yes.</p>
Page 323	Page 325
<p>1 MR. HEGARTY: I'm sorry, we're not getting</p> <p>2 realtime.</p> <p>3 MS. O'DELL: Let's go off the record. Do you</p> <p>4 need that or can we move on?</p> <p>5 MR. HEGARTY: No, I need it. I just wanted</p> <p>6 to see what he just said, and I can't, I obviously</p> <p>7 can't see it so --</p> <p>8 MS. O'DELL: Off the record.</p> <p>9 THE VIDEOGRAPHER: Going off the record at</p> <p>10 7:03 p.m.</p> <p>11 (An off-the-record discussion was held.)</p> <p>12 THE VIDEOGRAPHER: We're back on the record</p> <p>13 at 7:05 p.m.</p> <p>14 BY MS. O'DELL:</p> <p>15 Q. You may continue, Doctor?</p> <p>16 A. Yes. So the Page 12, the middle paragraph, I would</p> <p>17 like to delete references 4575 from the whole</p> <p>18 paragraph, they don't belong there.</p> <p>19 Q. Okay.</p> <p>20 A. That's it.</p> <p>21 Q. Anything else? Okay. Doctor, do in vitro models</p> <p>22 reliably predict the pathogenicity of potentially</p> <p>23 harmful particulates or other carcinogens in humans?</p> <p>24 MR. HEGARTY: Objection, form.</p> <p>25 THE WITNESS: Yes.</p>	<p>1 BY MS. O'DELL:</p> <p>2 Q. Is it a generally accepted practice for researchers in</p> <p>3 your field to correlate findings from immortalized</p> <p>4 cells to in vivo application in humans?</p> <p>5 A. Yes.</p> <p>6 Q. In terms of the studies that you have conducted on</p> <p>7 talc, you mentioned that you use multiple types --</p> <p>8 multiple lines of each type of cell; do you recall</p> <p>9 that?</p> <p>10 A. Yes.</p> <p>11 Q. How many lines of or types of ovarian cells did you</p> <p>12 use?</p> <p>13 A. Three different ovarian cancer cell lines and three</p> <p>14 different normal cell lines.</p> <p>15 Q. And what's the reason for doing that?</p> <p>16 A. The reason is to get a rebox finding to show that it is</p> <p>17 not repeated three times but the finding is reproduced</p> <p>18 from three different normal or three different ovarian.</p> <p>19 Q. And could another scientist with your expertise in and</p> <p>20 background in research, could they replicate the</p> <p>21 studies that you've conducted?</p> <p>22 A. Yes.</p> <p>23 Q. In terms of the outcomes for oxidative stress and</p> <p>24 inflammation that you saw demonstrated in your studies,</p> <p>25 are there any alternative explanations for those</p>

82 (Pages 322 to 325)

Ghassan Saed, Ph.D.

Page 326	Page 328
<p>1 results?</p> <p>2 MR. HEGARTY: Objection, form.</p> <p>3 THE WITNESS: That talcum powder induces</p> <p>4 inflammation that leads to increased risk of ovarian</p> <p>5 cancer.</p> <p>6 BY MS. O'DELL:</p> <p>7 Q. Are there any other alternative explanations other than</p> <p>8 the presence of talc treating a cell?</p> <p>9 A. This is a direct experiment showing isolated effect.</p> <p>10 Q. Based on your academic training and years of experience</p> <p>11 studying ovarian cancer, does the cause and effect</p> <p>12 observed in your studies make sense?</p> <p>13 MR. HEGARTY: Objection, form.</p> <p>14 THE WITNESS: It does.</p> <p>15 BY MS. O'DELL:</p> <p>16 Q. In terms of the particular data that you evaluated, I</p> <p>17 want to ask you to take a look at I think it was Bates</p> <p>18 Number Page 11 of Exhibit 1, and you were asked some</p> <p>19 questions about occasions when you averaged two</p> <p>20 findings?</p> <p>21 A. Outliers.</p> <p>22 Q. Yes. So address the outliers --</p> <p>23 A. Yeah, so what I forgot to say that when I was asked</p> <p>24 by -- this whole statistics, I did not touch. This was</p> <p>25 done by a professional, by a statistician, and the</p>	<p>1 RE-EXAMINATION BY MR. HEGARTY:</p> <p>2 Q. Doctor, in connection with your work in this</p> <p>3 litigation, did the lawyers for Plaintiff provide you</p> <p>4 with any medical or scientific literature?</p> <p>5 A. No.</p> <p>6 Q. So none of the materials we marked as Exhibit Number 11</p> <p>7 were provided by Counsel for Plaintiffs?</p> <p>8 MS. O'DELL: Object to the form.</p> <p>9 THE WITNESS: Yeah, this was copied and</p> <p>10 provided by them, the references I made.</p> <p>11 BY MR. HEGARTY:</p> <p>12 Q. In connection with you -- strike that. In connection</p> <p>13 with any other testing you have done involving cell</p> <p>14 cultures, have you ever served as an expert witness or</p> <p>15 a consultant in litigation involving the same topic of</p> <p>16 those experiments?</p> <p>17 MS. O'DELL: Object to the form.</p> <p>18 THE WITNESS: I never served, as I stated, as</p> <p>19 an expert witness in any litigation.</p> <p>20 BY MR. HEGARTY:</p> <p>21 Q. In connection with any experimental testing you've done</p> <p>22 involving cell cultures, have you ever served as a paid</p> <p>23 expert for plaintiffs lawyers on the same topic for</p> <p>24 which you were doing those experiments?</p> <p>25 MS. O'DELL: Object to the form.</p>
Page 327	Page 329
<p>1 results, his finding is in the section in the notebook.</p> <p>2 He determined everything.</p> <p>3 Q. Would you have published your results even if they had</p> <p>4 shown there was no biological effect?</p> <p>5 MR. HEGARTY: Objection, form.</p> <p>6 THE WITNESS: Of course.</p> <p>7 BY MS. O'DELL:</p> <p>8 Q. Is it a standard cell culture technique generally</p> <p>9 accepted in your field to split the cell culture right</p> <p>10 after the cells have -- (coughing in room) -- in a</p> <p>11 24-hour period?</p> <p>12 A. It is.</p> <p>13 Q. Is it a standard cell culture technique that's</p> <p>14 generally accepted in your field to start experiments</p> <p>15 right after splitting the cells?</p> <p>16 A. Cells have to reach confluency and then you split them,</p> <p>17 yes.</p> <p>18 Q. And it's generally accepted to begin your experiments</p> <p>19 right after that point?</p> <p>20 A. Correct.</p> <p>21 MS. O'DELL: Nothing further.</p> <p>22 How long was that?</p> <p>23 THE VIDEOGRAPHER: 14 minutes.</p> <p>24 MR. HEGARTY: Give me a second.</p> <p>25</p>	<p>1 THE WITNESS: Have I been hired by and paid</p> <p>2 for by another? I'm sorry --</p> <p>3 BY MR. HEGARTY:</p> <p>4 Q. Other lawyers at the same time you were doing cell</p> <p>5 culture tests involving the same topic that you were</p> <p>6 consulting with them on.</p> <p>7 MS. O'DELL: Object to the form.</p> <p>8 THE WITNESS: No.</p> <p>9 BY MR. HEGARTY:</p> <p>10 Q. You said in response to counsel's question that when</p> <p>11 you used the word marginal, you meant marked. What</p> <p>12 is -- where is a written definition for marked?</p> <p>13 A. Marked.</p> <p>14 Q. I think I said that, but where is a published standard</p> <p>15 for what marked means?</p> <p>16 A. This is marked is to me, but we can go the</p> <p>17 statistically significance. To me, when you have an</p> <p>18 increase of 1 versus 6 fold, that's a marked increase.</p> <p>19 Q. Is there a written standard for what constitutes a</p> <p>20 marked increase?</p> <p>21 A. No.</p> <p>22 MS. O'DELL: Object to the form.</p> <p>23 BY MR. HEGARTY:</p> <p>24 Q. When I asked you not long ago if you had any revisions</p> <p>25 to your expert report, you answered no. Do you recall</p>

Ghassan Saed, Ph.D.

Page 330	Page 332
<p>1 telling me that?</p> <p>2 MS. O'DELL: I don't recall the question</p> <p>3 being asked.</p> <p>4 BY MR. HEGARTY:</p> <p>5 Q. I did ask. I asked you, Doctor, didn't I, if you had</p> <p>6 any -- if you needed to revise in any way your report.</p> <p>7 Do you recall me asking that?</p> <p>8 MS. O'DELL: Object to the form.</p> <p>9 THE WITNESS: Probably I forgot that those</p> <p>10 references need to be done.</p> <p>11 BY MR. HEGARTY:</p> <p>12 Q. When did this revelation come to you?</p> <p>13 A. I mean I don't --</p> <p>14 MS. O'DELL: Object to the form.</p> <p>15 THE WITNESS: I'm not sure, we've been</p> <p>16 through many, many, many questions, so I don't really</p> <p>17 remember be accurately.</p> <p>18 BY MR. HEGARTY:</p> <p>19 Q. Well, I asked that you question about --</p> <p>20 A. Make you did, I'm not denying, maybe you did, but I'm</p> <p>21 saying there are too many things that we're covering</p> <p>22 today in very small time.</p> <p>23 Q. Well, did you discover the need to make those revisions</p> <p>24 before today?</p> <p>25 A. Yes, they actually they were marked in my -- with my</p>	<p>1 A. What's the name of the lady I met today --</p> <p>2 MS. O'DELL: Michelle.</p> <p>3 THE WITNESS: Michelle, I just met her today.</p> <p>4 Sorry, I'm not good at names.</p> <p>5 MS. O'DELL: Alastair.</p> <p>6 THE WITNESS: And Alastair, we met today.</p> <p>7 BY MR. HEGARTY:</p> <p>8 Q. You testified a moment ago that an in vitro model</p> <p>9 reliably predicts that, I think, pathogenesis of</p> <p>10 potentially harmful particles and other carcinogens --</p> <p>11 let me back up and find that testimony -- you said</p> <p>12 do -- you agreed with the question that in vitro models</p> <p>13 reliably predict the pathogenesis of potentially</p> <p>14 harmful particulates or other carcinogens in humans.</p> <p>15 Do you recall agreeing with that statement?</p> <p>16 A. Yes.</p> <p>17 Q. What data does it take for an in vitro model to</p> <p>18 reliably predict the carcinogenicity of a particle?</p> <p>19 A. What data?</p> <p>20 Q. Is it your testimony that in vitro models by themselves</p> <p>21 reliably predict the carcinogenicity of a particle to a</p> <p>22 human?</p> <p>23 A. Yes.</p> <p>24 MS. O'DELL: Object to the form.</p> <p>25 THE WITNESS: They do.</p>
Page 331	Page 333
<p>1 handwriting, this is my handwriting, they were marked</p> <p>2 with my handwriting.</p> <p>3 Q. When did you make those handwritten marks?</p> <p>4 A. Last night, I was reviewing this, and I -- what I</p> <p>5 understood maybe your question as if I want to make</p> <p>6 something to the text, but this is like probably the</p> <p>7 end notes without the references.</p> <p>8 Q. Did you meet with counsel for Plaintiffs yesterday?</p> <p>9 A. Did I meet with -- yes, I did.</p> <p>10 Q. For how long?</p> <p>11 A. I can't remember, three, four hours, five hours, I</p> <p>12 don't know.</p> <p>13 Q. From when to when?</p> <p>14 A. When was it, 10 maybe to 2, 3.</p> <p>15 Q. Who did you meet with?</p> <p>16 A. The three -- Leigh, Margaret, John, right, and who</p> <p>17 else -- I think that's it right, I don't remember,</p> <p>18 Leigh, Margaret, John, and Dan.</p> <p>19 Q. At any point in time during your consultation with</p> <p>20 Plaintiff's Counsel, have you met with any other</p> <p>21 lawyers that you've not identified here today?</p> <p>22 A. Have I met at any point?</p> <p>23 Q. At any point.</p> <p>24 A. I met Allison, right?</p> <p>25 Q. Any others who we haven't talked about?</p>	<p>1 BY MR. HEGARTY:</p> <p>2 Q. Cite for me an instance when a carcinogen has been</p> <p>3 identified in humans based solely on an in vitro model.</p> <p>4 A. I can't remember.</p> <p>5 Q. When have you ever classified a substance as a</p> <p>6 carcinogen based on the result in an in vitro model?</p> <p>7 A. In vitro model is a good predictor to determine whether</p> <p>8 a substance is carcinogenic or not, if the same effect</p> <p>9 is replicated in vivo.</p> <p>10 Q. You did not replicate your results in an in vivo model,</p> <p>11 correct?</p> <p>12 A. Not yet.</p> <p>13 Q. You were asked with regard to your experimental results</p> <p>14 whether there was any other alternative explanation for</p> <p>15 the results. What did you do to rule out alternative</p> <p>16 explanations for the results that you found in your</p> <p>17 testing?</p> <p>18 A. Because treatment without talc did not induce it, we're</p> <p>19 doing a comparison, very simple comparison with and</p> <p>20 without, and with did this, without, this didn't do.</p> <p>21 Q. You claim that your test results show that talc</p> <p>22 increases the risk of ovarian cancer. How did you show</p> <p>23 by your test results that talc increases the risk --</p> <p>24 I'm sorry -- yeah, increases the risk of ovarian</p> <p>25 cancer?</p>

84 (Pages 330 to 333)

Ghassan Saed, Ph.D.

Page 334	Page 336
<p>1 A. One more time, please.</p> <p>2 Q. How do you remember test results show that talc</p> <p>3 increases the risk of ovarian cancer?</p> <p>4 A. By showing that the treatment with talcum powder</p> <p>5 induces the same oxidative oxidant and anti-oxidant</p> <p>6 profile that we observe in epithelial ovarian cancer</p> <p>7 cells.</p> <p>8 Q. But no study has shown those results in women using</p> <p>9 cosmetic talc, correct?</p> <p>10 MS. O'DELL: Object to the form.</p> <p>11 THE WITNESS: So you're saying there's no</p> <p>12 studies out there showing woman using the talc powder</p> <p>13 have increased any of these markers?</p> <p>14 BY MR. HEGARTY:</p> <p>15 Q. Correct.</p> <p>16 A. I think you asked me the same question before.</p> <p>17 Q. Let me ask it a different way, if you -- I already</p> <p>18 asked you the same question. How do you go from your</p> <p>19 test results to concluding there's an increased risk of</p> <p>20 cancer with applying talc to the body?</p> <p>21 MS. O'DELL: Object to the form.</p> <p>22 THE WITNESS: Again, as I stated, the</p> <p>23 treatment of ovarian cancer cells, three different</p> <p>24 ovarian cancer cell lines and three different normal</p> <p>25 cells with talcum powder induces a profile of oxidative</p>	<p>1 I don't understand what you're trying to do, seriously.</p> <p>2 BY MR. HEGARTY:</p> <p>3 Q. Well, have you ever reported finding a pro-oxidative or</p> <p>4 an anti-oxidative state in normal ovarian cells?</p> <p>5 MS. O'DELL: Object to the form.</p> <p>6 THE WITNESS: As compared to what?</p> <p>7 BY MR. HEGARTY:</p> <p>8 Q. As compared to nothing.</p> <p>9 A. How you not compare to nothing?</p> <p>10 Q. Right.</p> <p>11 A. So we comparing ovarian cancer to normal cells.</p> <p>12 Q. My question is simply in normal cells, have you ever</p> <p>13 found pro-oxidative or anti-oxidative state?</p> <p>14 A. We found -- okay, maybe I know what you want me to say.</p> <p>15 So there are the players, the key oxidants and key</p> <p>16 anti-oxidants, they are expressed in all cells</p> <p>17 including normal. Now, the amount of -- the degree of</p> <p>18 expression, that what gets screwed up and altered when</p> <p>19 you develop -- you start -- cells start developing that</p> <p>20 oncogenesis phenotype.</p> <p>21 Q. I need to leave Mr. Klatt a minute or two. You</p> <p>22 mentioned that you would still have published your</p> <p>23 article if you found no biologic effect. Do you recall</p> <p>24 answering that question?</p> <p>25 A. Correct.</p>
Page 335	Page 337
<p>1 stress that we in our lab have extensively published</p> <p>2 and characterized for ovarian cancer cells.</p> <p>3 BY MR. HEGARTY:</p> <p>4 Q. You characterized that state in ovarian cancer cells,</p> <p>5 correct?</p> <p>6 MS. O'DELL: I'm sorry --</p> <p>7 THE WITNESS: State?</p> <p>8 BY MR. HEGARTY:</p> <p>9 Q. Well, the pro-oxidant and anti-oxidant state, you've</p> <p>10 characterized that to exist in ovarian cancer cells,</p> <p>11 correct?</p> <p>12 A. We characterized that there is an enhanced pro-oxidant</p> <p>13 state in -- that manifest in ovarian cancer cells, yes.</p> <p>14 Q. You've not done any studies showing a pro-oxidant or</p> <p>15 decreased anti-oxidant state in normal ovarian cancer</p> <p>16 cells, correct?</p> <p>17 MS. O'DELL: Object to the form.</p> <p>18 THE WITNESS: Normal ovarian cancer?</p> <p>19 BY MR. HEGARTY:</p> <p>20 Q. Yes. I'm sorry -- you have not shown a pro-oxidative</p> <p>21 or anti-oxidative state in normal ovarian cells?</p> <p>22 A. In response to what?</p> <p>23 Q. In response to anything.</p> <p>24 MS. O'DELL: Object to the form.</p> <p>25 THE WITNESS: That's a very vague question.</p>	<p>1 Q. Is it your belief that anyone would publish your paper</p> <p>2 if you showed no biologic effect?</p> <p>3 MS. O'DELL: Object to the form.</p> <p>4 THE WITNESS: Anyone not me, you talking</p> <p>5 about me?</p> <p>6 BY MR. HEGARTY:</p> <p>7 Q. Yes, any publisher.</p> <p>8 A. That it would be published, yes, I would consider this</p> <p>9 a very positive and very negative, same thing.</p> <p>10 Q. But do you think a journal would publish --</p> <p>11 A. Absolutely, it's a finding.</p> <p>12 Q. What is that based on?</p> <p>13 A. It's a finding.</p> <p>14 Q. Have you ever approached a journal and had them publish</p> <p>15 an article on a negative finding?</p> <p>16 A. I don't know what you call negative.</p> <p>17 Q. Well, showing no biologic --</p> <p>18 A. That's not negative, that's a huge finding.</p> <p>19 Q. Okay. All right.</p> <p>20 You have questions, Mike? Go ahead.</p> <p>21 RE-EXAMINATION BY MR. KLATT:</p> <p>22 Q. Dr. Saed, are you aware that a plaintiff's expert named</p> <p>23 John Godlesky has tested dozens of women's ovarian,</p> <p>24 reproductive, and peritoneal tissue, and found many,</p> <p>25 many nontalc particles, foreign particles in that</p>

Ghassan Saed, Ph.D.

Page 338	Page 340
<p>1 tissue; are you aware of that?</p> <p>2 A. No.</p> <p>3 Q. If you tested those other foreign particles that aren't</p> <p>4 talc in the same test that you tested talc, could you</p> <p>5 get the same results?</p> <p>6 MS. O'DELL: Object to the form.</p> <p>7 THE WITNESS: I didn't test them.</p> <p>8 BY MR. KLATT:</p> <p>9 Q. But is it possible that if you tested them, you could</p> <p>10 get the same results?</p> <p>11 A. If I didn't test them, I will not give you an answer.</p> <p>12 Q. I'm sorry?</p> <p>13 A. I did not test them.</p> <p>14 Q. So you have no idea whether any other foreign particle</p> <p>15 other than talc would result in the same findings you</p> <p>16 found for talc, correct?</p> <p>17 MS. O'DELL: Object to the form.</p> <p>18 BY MR. KLATT:</p> <p>19 Q. Because you haven't done the test.</p> <p>20 A. When I test, I will tell you.</p> <p>21 Q. So you can't give us any information on what any other</p> <p>22 particles other than talc would do under the tests that</p> <p>23 you -- let me finish -- the tests that you submitted</p> <p>24 talc to, correct?</p> <p>25 MS. O'DELL: Object to the form.</p>	<p>1 many questions as I can in 20 seconds. You're the</p> <p>2 first expert to reach the conclusions that you have in</p> <p>3 your report, is that correct?</p> <p>4 MS. O'DELL: Object to the form.</p> <p>5 THE WITNESS: That were looking at the</p> <p>6 molecular mechanism and molecular effect of talcum</p> <p>7 powder?</p> <p>8 BY MR. LOCKE:</p> <p>9 Q. Right.</p> <p>10 A. I wasn't the first one.</p> <p>11 Q. Who did it before?</p> <p>12 A. Was Shukla and there was the -- what was the other guy</p> <p>13 name, I can't remember names, but there were two or</p> <p>14 three papers that look at molecular mechanisms,</p> <p>15 molecular effects.</p> <p>16 Q. Okay.</p> <p>17 MS. O'DELL: I'm sorry, time's up.</p> <p>18 MR. LOCKE: I'm going to still object to not</p> <p>19 being able to ask a couple quick questions here.</p> <p>20 MS. O'DELL: Tom, I'm sorry, I mean this</p> <p>21 is between --</p> <p>22 MR. LOCKE: You're cutting me off.</p> <p>23 MS. O'DELL: I've tried to be very</p> <p>24 accommodating, but this is between you and your</p> <p>25 co-counsel.</p>
Page 339	Page 341
<p>1 THE WITNESS: I only can give you information</p> <p>2 to the experiments that I did and --</p> <p>3 BY MR. KLATT:</p> <p>4 Q. And you didn't do any tests on any foreign particles</p> <p>5 other than talc, correct?</p> <p>6 A. Correct.</p> <p>7 Q. And has all your testing on talc been paid for by the</p> <p>8 Beasley Allen firm?</p> <p>9 MS. O'DELL: Object to the form.</p> <p>10 THE WITNESS: My time?</p> <p>11 BY MR. KLATT:</p> <p>12 Q. Well, the testing, yeah, the time that you spent</p> <p>13 testing talc.</p> <p>14 MS. O'DELL: Object to the form.</p> <p>15 THE WITNESS: No, testing is not -- what are</p> <p>16 you trying to -- we already discussed this. Time, they</p> <p>17 paid for my time for consultation, I paid for the</p> <p>18 expenses from the lab. We already talked about that.</p> <p>19 MR. KLATT: Okay. Anybody else?</p> <p>20 MR. LOCKE: Yeah. Are you finished?</p> <p>21 MR. KLATT: Yes.</p> <p>22 EXAMINATION BY MR. LOCKE:</p> <p>23 Q. I just want to clarify for you, Doctor --</p> <p>24 MS. O'DELL: You've got 20 seconds.</p> <p>25 MR. LOCKE: Okay, well, I'm going to ask as</p>	<p>1 MR. LOCKE: No, it's really not.</p> <p>2 MS. O'DELL: Yes, it is, it is.</p> <p>3 MR. LOCKE: Okay. We'll be back with this</p> <p>4 witness.</p> <p>5 MR. HEGARTY: Do you have anything further?</p> <p>6 MS. O'DELL: I have nothing further.</p> <p>7 MR. HEGARTY: I just want to put on the</p> <p>8 record several document requests, and I certainly don't</p> <p>9 expect you to agree to them right now.</p> <p>10 We would like copies of Dr. Saed's prior</p> <p>11 drafts of his manuscript; copies of any correspondence</p> <p>12 with OB-GYN Oncology and its reviewers, whether it's in</p> <p>13 his possession or maintained on a website; any cover</p> <p>14 letters accompanying submissions of the manuscript to</p> <p>15 either OB-GYN Oncology or Reproductive Sciences; all</p> <p>16 communications with Dr. Saed, between Dr. Saed and</p> <p>17 Beasley Allen and other plaintiffs lawyers with regard</p> <p>18 to his manuscript; and the budget that Dr. Saed</p> <p>19 prepared for his manuscript; as well as all accounting</p> <p>20 documents, invoices, or other original documents that</p> <p>21 memorialize the expenses, costs, et cetera, hours</p> <p>22 worked on the manuscript that we -- that are reported</p> <p>23 in Exhibit Number 5.</p> <p>24 MS. O'DELL: You're referring to the budget</p> <p>25 officer at Wayne State?</p>

Ghassan Saed, Ph.D.

<p style="text-align: center;">Page 342</p> <p>1 MR. HEGARTY: Correct, and the documents that</p> <p>2 Sharon Pepe used to put together the numbers that are</p> <p>3 reported in that exhibit. And those are at least the</p> <p>4 document requests that I can think of right now, but we</p> <p>5 reserve the right to go back and look at the transcript</p> <p>6 to see if there are any additional requests, and we</p> <p>7 will make them in a timely manner.</p> <p>8 MS. O'DELL: We will be happy to meet and</p> <p>9 confer on all of those items, some of which we might</p> <p>10 work an agreement out, some of which we might need some</p> <p>11 assistance by the Court.</p> <p>12 THE VIDEOGRAPHER: This concludes the</p> <p>13 deposition. We're going off the record at 7:29 p.m.</p> <p>14 (The deposition was concluded at 7:29 p.m.)</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>	<p>1 -----</p> <p>2 E R R A T A</p> <p>3 -----</p> <p>4 PAGE LINE CHANGE</p> <p>5 REASON: _____</p> <p>6 _____</p> <p>7 REASON: _____</p> <p>8 _____</p> <p>9 REASON: _____</p> <p>10 _____</p> <p>11 REASON: _____</p> <p>12 _____</p> <p>13 REASON: _____</p> <p>14 _____</p> <p>15 REASON: _____</p> <p>16 _____</p> <p>17 REASON: _____</p> <p>18 _____</p> <p>19 REASON: _____</p> <p>20 _____</p> <p>21 REASON: _____</p> <p>22 _____</p> <p>23 REASON: _____</p> <p>24 _____</p> <p>25 REASON: _____</p>
<p style="text-align: center;">Page 343</p> <p>1 CERTIFICATE OF NOTARY</p> <p>2</p> <p>3 STATE OF MICHIGAN)</p> <p>4) SS</p> <p>5 COUNTY OF OAKLAND)</p> <p>6 I, Laurel A. Frogner, Certified Shorthand</p> <p>7 Reporter, a Notary Public in and for the above county</p> <p>8 and state, do hereby certify that the above deposition</p> <p>9 was taken before me at the time and place hereinbefore</p> <p>10 set forth; that the witness was by me first duly sworn</p> <p>11 to testify to the truth, and nothing but the truth,</p> <p>12 that the foregoing questions asked and answers made by</p> <p>13 the witness were duly recorded by me stenographically</p> <p>14 and reduced to computer transcription; that this is a</p> <p>15 true, full and correct transcript of my stenographic</p> <p>16 notes so taken; and that I am not related to, nor of</p> <p>17 counsel to any party, nor interested in the event of</p> <p>18 this cause.</p> <p>19</p> <p>20</p> <p>21 Laurel A. Frogner, CSR-2495, RMR, CRR</p> <p>22 Notary Public,</p> <p>23 Oakland County, Michigan</p> <p>24 My Commission expires: 4-22-2022</p> <p>25</p>	<p>1 ACKNOWLEDGMENT OF DEPONENT</p> <p>2</p> <p>3 I, _____, do</p> <p>4 hereby certify that I have read the</p> <p>5 foregoing pages, and that the same</p> <p>6 is a correct transcription of the answers</p> <p>7 given by me to the questions therein</p> <p>8 propounded, except for the corrections or</p> <p>9 changes in form or substance, if any,</p> <p>10 noted in the attached Errata Sheet.</p> <p>11</p> <p>12 _____</p> <p>13 Ghassan Saed, Ph.D. DATE</p> <p>14</p> <p>15 Subscribed and sworn</p> <p>16 to before me this</p> <p>17 _____ day of _____, 20____.</p> <p>18 My commission expires: _____</p> <p>19 _____</p> <p>20 Notary Public</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>

87 (Pages 342 to 345)